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Section I

International Affairs

Asymmetric Return and Volatility Transmission in Euro Zone and Baltic Countries Stock Markets

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Abstract

This paper analyzes the transmission of return and volatility from different stock markets. The stock markets that are analysed in the paper are from Lithuania, Estonia, Latvia and Euro zone. The indices that quantify the evolution of this stock markets are EURO STOXX 50, OMX Tallinn, OMX Vilnius and OMX Riga. These indices are used for determinations of return and risk in the case of this stock's markets. Multivariate asymmetric heteroscedastic BEKK model was applied for estimate the transmission of return and volatility between the markets. The results of the empirical study confirm the existence of spillovers phenomenon: first, the spillover return from the Euro Zone stock market to the Baltic stock markets, second, the spillover volatility from the Euro Zone to Estonia and Lithuania stock market and third, the asymmetry of volatility transmission only between markets from Lithuania and Estonia.

Key words: BEKK model, Baltic stock markets, asymmetric spillovers
J.E.L. classification: G11, G15, C51

1. Introduction

In the las years, the national financial markets, have become more correlated and interconnected. The adherence of Central and East European countries to the European Union facilitated the phenomenon of integration of financial markets. Thus, researchers focused on the transmission of volatility and return between capital markets in all periods of economic cycles, not only in times of economic crisis, as it was the case before. Harris and Pisedtasalasai (2006) mention a disadvantage of the existence of the transmission phenomenon of return: stock markets are inefficient. Existence of return spillovers may offer the possibility to forecast future returns. Knowing return spilover is also useful for portfolio management.

The results obtained when studying volatility spillover are useful to the financial institutions, the policy makers, international investors in order to make decisions for the diversification of their portfolios while estimating the conditional volatility is necessary in the option pricing, value at risk and hedging.

The current paper analyzes the spillovers phenomenon between the Baltic stock markets and the Euro zone stock market. The study of the stock markets of the Baltic countries is attractive for several reasons. The first reason is determined by the fact that the creation of a portfolio using the stocks sold on the three markets in Tallin, Vilnius and Riga are relatively easy due to the common institutional setup. Another reason was pointed out by Brännäs and Soultanaeva (2011) and reveals the fact that the stock markets in the Baltic countries are analysed less. Therefore, it is important for an investor who wants to diversify a portfolio to know whether the capital markets in Tallin, Vilnius and Riga react in the same manner and with the same intensity in transmitting volatility and return. The reduction of the risk for a portfolio which includes Baltic markets stocks would be rather difficult since these markets have evolution in terms of return and volatility. Also the periodic evaluation of

characteristics of spillovers is important for attaining and preserving international financial markets stability.

The studies on the stock markets from Estonia, Latvia and Lithuania are important for potential investors if this offer opportunities of international diversification. If between stock markets it does not exist the phenomenon of spillovers, or this phenomenon is not intense, than the stock markets are not integrated, so then the investors can diversify their portfolio with the assets from this markets.

Maneschiöld, in a study published in 2006, approaches the integration of Baltic stock markets in United States, Japan, Germany, the United Kingdom, and France. The analyzed period is from June 3, 1996, to September 16, 2005. The results obtained confirm the integration on long term of the Latvia market on the German market. This result confirms the possibility for international investors to diversify their portfolios through the investments performed in the Baltic countries.

Aktan, et al. 2010 publish a study of stock markets from Estonia, Latvia and Lithuania during 01.02.2002–03.01.2009. Empirical study highlighted that conditional volatility has asymmetry and that volatility can be modelled with asymmetric heteroscedastic models.

First objective of this paper is to evaluate if exist returns transmission between stock markets from Baltic countries and Euro zone. The second objective of this paper is to evaluate if exist volatility transmission between stock markets from Baltic countries and Euro zone and the third objective of this paper is to evaluate in spillovers volatility presents the characteristics of asymmetry.

The results obtained confirm the existence of the unidirectional transmission phenomenon of return, unidirectional volatility transmission and the bidirectional asymmetric transmission of volatility between two stock markets from the Baltic countries in Estonia and Lithuania.

The paper is structured as follows: section 2 presents the literature review with studies regarding the return and volatility spillover phenomenon; section 3 presents the entire empirical statistical analysis, section 4 describes the models used, the multivariate heteroscedastic models; section 5 presents the empirical results. The paper ends with conclusions.

2. Literature review

Alotaibi and Mishra (2015) study the spillovers effects from Saudi Arabia and US markets to the Bahrain, Oman, Kuwait, Qatar and United Arab Emirates stock markets (named GCC). The study is performed during the period June 2005 – May 2013. The results obtained confirm: a) spillover effects are statistically significant for all GCC stock markets; b) spillover effects from US market to all GCC stock markets and c) spillover effects from Saudi Arabia to GCC stock markets with the exception of Bahrain stock market.

The volatility transmission is also studied between the developed countries (Europe, US and Japan) and twenty Asian and MENA emerging markets (Balli, et al. 2015) during 2000-2003 and the results obtained show that volatility transmission is performed from the developed countries towards the emerging countries. The study demonstrates that volatility spillovers present different intensities for the countries within the sample.

The analysis of spillover effects of return and volatility conducted by (Chiang et al., 2013) from US stock market to Brasilia, Russia, India, China and Vietnam (BRICV) during the period which starts when each markets begins to function until 31st of December 2009 with the aim to determine the sub-prime mortgage crises effect on the markets behaviour. The results obtained confirm the existence of certain significant spillover from US to BRICV countries. Remarkable spillover effects from US to BRICV countries are those towards Russia and Vietnam.

Nishimura, Tsutsui and Hirayama (2015) analyze the spillover volatility phenomenon in stocks markets from the China to the Japan during the period November 2003 – November 2011 taking into consideration data registered during the trading days and values of the indices registered every five minutes. They estimate the volatility transmission from the China especially towards the stocks of the companies from Japan which run their activity in China but also towards the Tokyo market. Moreover, the volatility spillover phenomenon is stronger in the last years considered in the analysis when China's economy became more important at global level.

The empirical results obtained by Chirilă et al. (2015) demonstrate the transmission of volatility of the European stock market towards markets in Central and East Europe for the period comprised between 2005 and 2015. Volatility transmission in the Eastern Europe countries has also been

analysed by Popa et al. (2015). Studies on volatility spillover are also performed for other asset markets: bonds (Christiansen, 2005; Skintzi and Refenes, 2006; Claeys, and Vasicek, 2012), currency markets (Bubak et al., 2011; Antonakakis, 2012).

We also encounter more recent preoccupations regarding volatility transmission between different asset categories (Liou, 2015) money, currency, stock, bond, and public real estate within the G7 member states. The results obtained for these five asset categories for the period January 1997 – December 2013 indicate low cross-asset volatility spillover in this country group. The general stock portfolio represents the main contributor to the total volatility transmission.

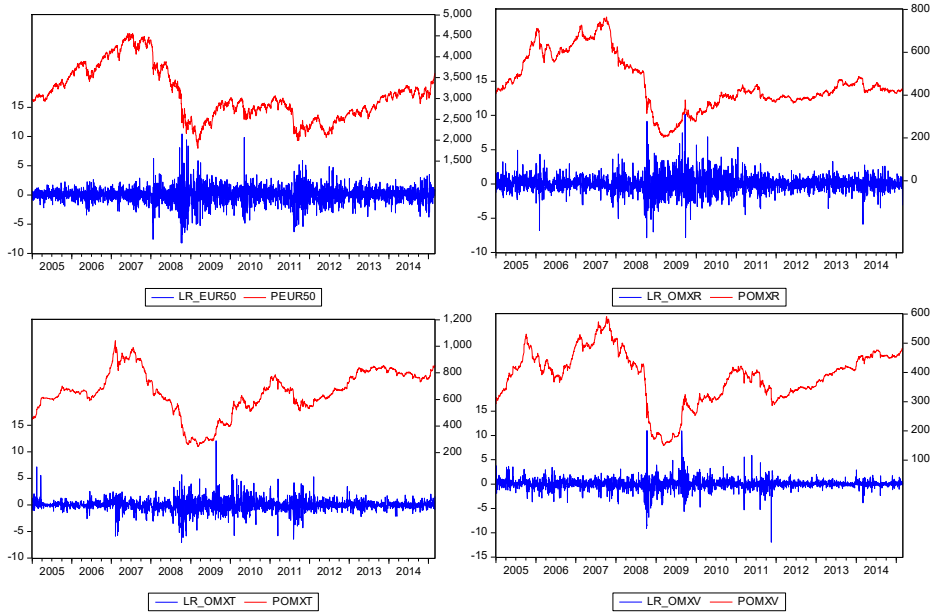
Grobys (2015) analyzes volatility transmission between foreign exchange rate markets and the US stock market. The results published confirm the existence of volatility spillover phenomenon especially during high-peak volatility periods. When studying volatility transmission one can remark the asymmetry phenomenon. The study of Koutmos and Booth (1995) for stock markets volatility transmission between New York, Tokyo and London, present the result for volatility transmission that is stronger when new negative shocks occur in comparison with the new positive shocks.

Haris and Pisedtasalasai (2006) study spillover effects between the larger stock portfolios and small stock portfolios through the FTSE 100, FTSE 250 and FTSE Small Cap equity indices. Asymmetry is the characteristic of return and volatility transmission that they find. Return and volatility spillovers is recorded mainly from larger stock portfolios to small stock portfolios. Conclusions of this study are in compliance with the previously ones obtained by Reyes (2001) for the stock market in Tokyo.

3. Data and preliminary empirical analysis

The study is conducted for the stock markets in the Baltic countries: Estonia, Latvia, and Lithuania. To determine the overall evolution of these capital markets we took into consideration the following stock indices: OMX Riga (Latvia), OMX Tallinn (Estonia) and OMX Vilnius (Lithuania); at the same time in order to quantify the capital market from the Euro zone we considered the EURO STOXX 50 stock index.

Figure no. 1. The evolution of indices and returns of stock markets in the Euro zone, Riga, Tallinn and Vilnius



Source: author's realization

The daily closing values of the stock indices are taken from the Datastream database for the interval of 31 December 2004 – 21 April 2015 and comprise 2,650 records for each index. The values of indices are expressed in the current local currency as they are also used in the empirical analysis conducted by Syriopoulos (2004), Yang, Hsiao, and Wang (2006), Diebold and Yilmaz (2009). Stock indices are, in the paper with the name PEURO50, POMXR, POMT and POMXV. LR_EUR50, LR_OMXR, LROMXT and LR_OMXV represent the returns of stock markets under analysis.

Several empirical features of financial returns are identified in the graphical representations, Figure 1. All the returns have a stationary mean and volatility varies within an interval without tending to infinity. The returns present big volatility during the general downturn periods and much small volatility. during the general growth periods of the market suggesting the existence of the volatility asymmetry phenomenon.

The highest volatility both of the Euro zone market and the Baltic countries stock markets is noticed throughout the years 2008 and 2009, year when the latest economic and financial crisis took place. In Riga, this high volatility maintained for a longer period of time in comparison with the other stock markets under consideration.

Table no. 1 Unit root tests on daily returns for the Euro zone, Riga, Tallinn and Vilnius

	t statistics for ADF test		**t statistics for PP test**	
Variable	**Without trend**	**With trend**	**Without trend**	**With trend**
LR_EUR50	-53.90139***	-53.89493***	-54.26778***	-54.26300***
LR_OMXR	-54.19067***	-54.18146***	-54.41077***	-54.40229***
LR_OMXT	-44.75268***	-44.74435***	-47.52223***	-47.51558***
LR_OMXV	-45.19842***	-45.19011***	-49.52781***	-49.52092***

Note: LR_EUR50, LR_OMXR, LR_OMXT, LR_OMXV – return of the Euro zone, Riga, Tallin and Vilnius stock markets
****,**,* represents significance levels for 0,01, 0.05, 0.10.*
Source: author's calculation

The market volatilities are presented by clusters: high volatilities maintain long time and also the small volatilities maintain for a long period of time. This characteristic suggests that returns can be modelled by means of the heteroscedastic models and that at the same time, volatility persists in time.

Figure 1 also shows that the lowest volatility is met on the Vilnius and Tallinn markets, feature that is confirmed by the standard deviation in table 2 and that measures the total risk of the market in the period considered.

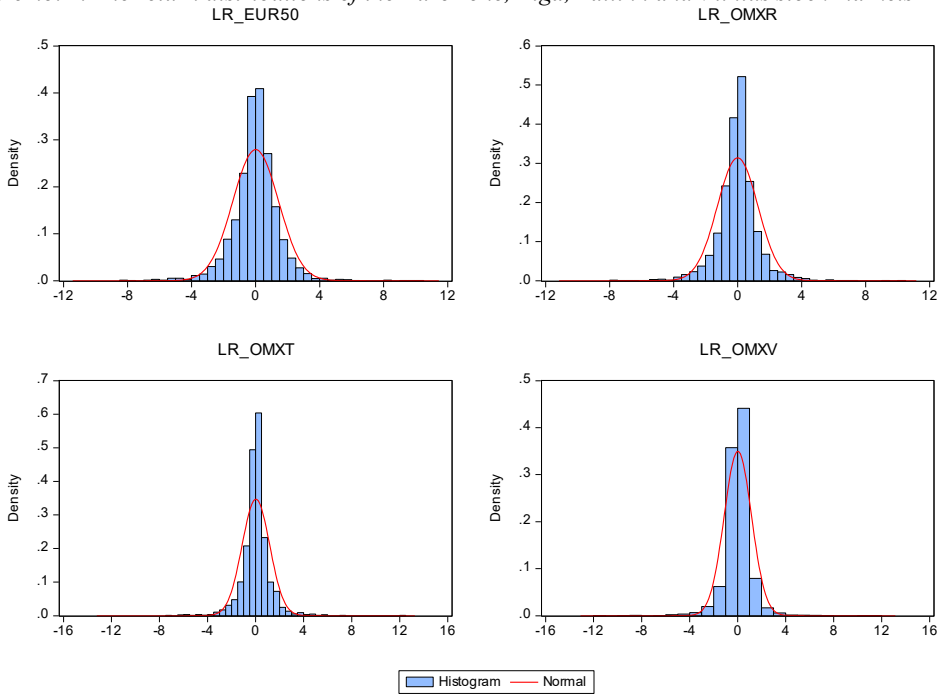
The testing of return stationarity with ADF test (Dickey, and Fuller, 1981) and the PP test (Phillips, and Perron, 1988) show the stationarity of returns. Therefore, the average return determined for returns may be considered return expected by the investors. The highest daily expected return is in Tallinn which has a value of 0.02438% while the lowest expected return is for the Riga stock market.

Table no. 2 Indicators of descriptive statistics estimated for the returns of Euro zone, Riga, Tallinn and Vilnius stock markets

Indicators	**LR_EUR50**	**LR_OMXR**	**LR_OMXT**	**LR_OMXV**
Mean	0.007491	0.000615	0.024387	0.018690
Median	0.001402	0.000000	0.000000	0.000000
Maximum	10.43765	10.17979	12.09448	11.00145
Minimum	-8.207879	-7.858646	-7.045882	-11.93777
Std. Dev.	1.428516	1.269800	1.149502	1.140863
Skewness	0.010094	0.154902	0.230401	-0.352370
Kurtosis	9.411021	10.18043	13.50908	22.21700
Jarque-Bera	4538.301	5703.522	12217.94	40830.95
Probability	0.000000	0.000000	0.000000	0.000000
Observations	2650	2650	2650	2650

Note: LR_EUR50, LR_OMXR, LR_OMXT, LR_OMXV – return of the Euro zone, Riga, Tallin and Vilnius stock markets
****,**,* represents significance levels for 0,01, 0.05, 0.10.*
Source: author's calculation

Figure no. 2. The return distributions of the Euro zone, Riga, Tallinn and Vilnius stock markets



Source: author's realization

The distribution of returns presents kurtosis excess. This feature is highlighted also by figure 2. Since the return distributions are leptokurtic, feature also known as fat tails, the extreme returns are more likely to occur.

To identify which model is more appropriate for modelling the returns we will analyze the total autocorrelation function, the partial autocorrelation function and the Ljung-Box test.

The results of Ljung-Box test present the fact that the daily returns of the stock markets are autocorrelated and can be modelled with ARMA models.

The Ljung-Box test but applied to the return squares confirm the cluster presentation of the return volatility that can be modelled by means of the heteroscedastic models.

The most appropriate models are the heteroscedastic ones and for estimate the interdependences among markets as regards return and risk, the heteroscedastic multivariate models will be considered.

4. The study methodology

Since the determination of interdependences among the four stock markets, Estonia, Latvia, Lithuania and the European Union is desired, a multivariate GARCH model, the BEKK model, is used, developed by Engle and Kroner (1995).

The mean equation of the model is:

$$Y_t = \alpha + \Gamma Y_{t-1} + \varepsilon_t \qquad \varepsilon_t \left| I_{t-1} \sim N\left(0, H_t\right) \right. , \tag{1}$$

Since there are four stock markets:

Y_t is a 4×1 vector of return

α is a vector 4×1 of the constants of the model,

Γ is a matrix 4×4 of the parameters associated to the lagged returns

The matrix Γ has on the diagonal parameters that show the impact of returns of stock markets on own past returns and the elements outside the diagonal highlight the relationships between the returns across markets.

ε_t is a vector 4×1 of residuals and has 4×4 conditional variance-covariance matrix which is noted with H_t.

Bollerslev Engle and Wooldrige (1988) propose H_t as follows:

$$vech(H_t) = vech(C) + \sum_{i=1}^{q} A_i vech(\varepsilon_{t-1}\varepsilon_{t-i}^{'}) + \sum_{i=1}^{p} G_i vech(H_{t-i}) \quad (2)$$

where $vech$ is the operator transforming a k dimensional symmetric matrix into an $k(k+1)/2\times 1$ array containing the elements on and below the main diagonal.

Bollerslev Engle and Wooldrige (1988), present two inconveniences: first, the number of parameters is very high and second, the matrix H_t to be positively defined, restrictions on parameters are needed. In order to solve the two problems Engle and Kroner (1995) create the BEKK model of the following form:

$$H_t = C^{'}C + A^{'}\varepsilon_{t-1}^{'}\varepsilon_{t-1}A + G^{'}H_{t-1}G \quad (3)$$

The model which will be used in this paper is proposed by Kroner and Ng (1998) and introduces in the previously presented model the empirical characteristic of volatility asymmetry. The volatility asymmetry resides in the different reaction of return to shocks: when negative shocks (bad information) occur, the determined volatility is higher than when positive shocks (positive information) of the same intensity appear. This model also allows to capture the asymmetric response of volatility in variances and covariances. It is of the form:

$$H_t = C^{'}C + A^{'}\varepsilon_{t-1}^{'}\varepsilon_{t-1}A + G^{'}H_{t-1}G + D^{'}\xi_{t-1}^{'}\xi_{t-1}D \quad (4)$$

where:

ξ_t takes the value ε_t if $\varepsilon_t < 0$ and 0 for the rest.

C is a 4×4 lower triangular matrix of constants;

A, G, D are 4×4 matrices.

The last term of the right-side model highlights the asymmetric characteristic of the time-varying variance-covariance. The parameters on the diagonal G matrix measure the effects of the own previous volatilities on its conditional variance while the parameters outside the diagonal g_{ij} measure the cross-market effects of volatility known as volatility spillover. In the D matrix, parameters which are on the diagonal, measure the effects of a market i to its previously negative shocks and the parameters outside the diagonal d_{ij} measure the response to a market *i* to the negative information of other markets named cross-market asymmetric responses.

The previously presented system is estimated using the full information maximum likelihood method. The conditional log-likelihood of residual vector of the observation t, (n being the number of stock exchange) is:

$$L = \sum_{t=1}^{T} L_t \ , \ L_t = \frac{n}{2} ln(2\pi) - \frac{1}{2} ln|H_t| - \frac{1}{2}\varepsilon_t^{'} H_t^{-1}\varepsilon_t \quad (5)$$

For the estimation, the algorithm BHHH is used since it maximizes the log-likelihood function.

5. Empirical results

The asymmetric multivariate model GARCH-BEKK(1,1) is estimated. The results are in table 3. The stock market in the Euro zone is noted with 1, the stock market (Latvia) is noted with 2, the stock market in Tallinn (Estonia) is noted with 3 and the stock market in Vilnius (Lithuania) is noted with 4. The results obtained from the estimation of this multivariate model offer information about the return and volatility spillovers between markets and eventually the asymmetric characteristic of this transmission.

The mean equation presents the transmission between returns. The parameters γ situated on the diagonal (γ_{11}, γ_{22}, γ_{33}, γ_{44}) show whether the returns of the Tallinn Vilnius Euro zone and Riga, depend on their first lag. The estimations of the parameters γ on the matrix diagonal are all statistically significant; therefore, the returns of these stock markets depend on their own returns from the previous day.

As regards the coefficients outside the diagonal, we notice the estimated significant parameters γ_{14}, γ_{13}, γ_{12} while their counterparts, γ_{41}, γ_{31}, γ_{21}, are not statistically significant. Therefore, there is a unidirectional transmission of return from the Euro zone towards the Baltic countries markets. The return is not spillover from the Baltic countries to Euro zone. "Global centre" hypothesis implies that a stock market may play a major role in the transmission of new information which appears in the macroeconomic environment.

The spillovers of return are only in the direction from Euro zone to Baltic countries (unidirectional transmission). This result tells us that macroeconomic shocks from European level are transmitted towards the Riga, Tallinn and Vilnius.

Table no. 3 The estimation of the GARCH asymmetric multivariate model

	EUR (i=1)	**OMXR(i=2)**	**OMXT(i=3)**	**OMXV(i=4)**
γ_{i1}	-0.069 ***	-0.005	0.004	-0.036
γ_{i2}	0.060 ***	-0.118 ***	0.082 ***	0.083 ***
γ_{i3}	0.076 ***	0.024	0.103 ***	0.015
γ_{i4}	0.061 ***	0.022	0.042 **	0.062 ***
a_{i1}	0.011	0.021	-0.105 ***	-0.014
a_{i2}	0.015	0.166 ***	-0.006	0.108 ***
a_{i3}	0.047 **	0.027 **	0.224 ***	0.029
a_{i4}	0.054 ***	0.024	0.008	0.293 ***
g_{i1}	0.815 ***	-0.026	0.512 ***	-0.113 ***
g_{i2}	-0.049 ***	0.973 ***	0.053 ***	-0.047 ***
g_{i3}	-0.262 ***	-0.008	0.986 ***	-0.016
g_{i4}	-0.054 ***	-0.018 ***	0.064 ***	0.911 ***
d_{i1}	-0.261 ***	-0.007	-0.095	0.004
d_{i2}	-0.048 ***	-0.87 **	0.029	-0.048 *
d_{i3}	-0.184 ***	0.024	0.046	-0.066 **
d_{i4}	-0.042 ***	-0.011	0.230***	-0.229 ***

*Note: ***,**,* represents significance levels for 0,01, 0.05, 0.10.*
Source: author's calculation

Unidirectional return transmission exist from the Tallinn to the Riga and Vilnius and from the Vilnius the Riga. Thus, the return of the Riga is influenced by the Euro zone and by Tallinn and Vilnius and the return of Vilnius is determined within the emerging markets only by Tallinn. The results are the same with the results obtained by Li and Majeroska (2008) who for the period January 1998 – December 2005 they find unidirectional transmission of return from markets in the developed countries Germany and United States of America towards the emerging countries Poland and Hungary as well as an influence between the neighboring emerging stock markets Poland and Hungary.

The A and G matrices presented in table 3 transmit information on the volatility spillovers between markets. The elements of the A matrix, on the diagonal, show the own ARCH effects. The elements on the G matrix on the diagonal measure the own GARCH effects. The parameters estimated on the A matrix, a_{22}, a_{33}, a_{44} and on the G matrix, g_{11}, g_{22}, g_{33}, g_{44} are statistically

significant. So the conditional variance of the return for the markets follows a GARCH (1,1) process. The conditional variances of the Riga, Tallinn and Vilnius stock markets are determined by their own shocks and previous volatilities while the Euro zone stock market is determined by its own previous volatility and not by previous shocks (a_{11} is not statistically significant).

The elements outside the diagonal of the A matrix captures the cross-market effects. Since a_{13} and a_{31} are statistically significant, there is a bidirectional transmission of shocks (new pieces of information) between the Euro zone market and the Tallinn market. Between the Euro zone and the Vilnius market there is a unidirectional transmission of shocks (a_{14} is statistically significant while a_{41} is not). There is also a unidirectional transmission of shocks from Riga towards Tallinn. The shocks are not transmitted between the Euro zone stock market and the Riga market. Still, the Riga stock market shocks are indirectly influenced by the shocks of the Euro zone because the of Vilnius market which transmits in a unidirectional way the shocks towards the Riga market (a_{42} is statistically significant while a_{24} is not). One can also witness a unidirectional transmission of shocks from Riga to Tallinn (a_{23} is statistically significant while a_{32} is not).

The elements outside the G diagonal capture the cross-market effects concerning the volatility transmission. The pairs of the parameters estimated, g_{12} and g_{21}, g_{13} and g_{31} and respectively g_{14} and g_{41} are statistically significant and show that there is a bilateral transmission of volatility between the Euro zone markets and the Baltic markets: Riga, Tallinn,Vilnius. There is also a bilateral transmission of volatility between Riga and Vilnius (g_{24} and g_{42} are statistically significant). There is volatility spillovers from the Tallinn market towards the Riga market (g_{32} is statistically significant while g_{23} is not) as well as from Tallinn towards Vilnius (g_{34} is statistically significant while g_{43} is not). The results confirmed by the parameters estimations suggest that these emerging markets are connected with the Euro zone market in the case of volatility. The Baltic countries are integrated in the Euro zone market in the case of volatility.

The asymmetry of markets volatility implies that the occurrence of a new negative event (shock) determines a higher volatility than the appearance of a new positive event. The elements of the D matrix highlight both the potential asymmetric responses of the stock markets determined by their own previous shocks and the asymmetric responses determined by the other stock markets included in the analysis.

The estimators of the parameters d_{11}, d_{22}, d_{44} are statistically significant so that the Euro zone, Riga, Vilnius markets have asymmetric responses to their own shocks while d_{33} is not statistically significant implying that the Tallinn stock market does not have an asymmetric response of volatility determined by its own shocks. Therefore, the sign of the own previous shocks influences the conditional variance of two of the three stock markets in the Baltic countries.

Few of the parameters estimated outside the diagonal of the D matrix are statistically significant. As regards the asymmetric transmission of volatility between the Baltic countries one may say that it is bidirectional for Vilnius, Tallinn markets on one side (d_{43} and d_{34} are statistically significant) and it is unidirectional from Vilnius towards Riga.

6. Conclusions

The interconnection of the stock markets resulted as a consequence of their globalization implies taking into consideration in the portfolio management the spillover volatility and return phenomenon. The paper we conducted focused on the study of the spillovers of return and also of volatility between the Baltic and Euro Zone stock market. Riga, Vilnius, Tallinn, Euro Zone has stationary returns, autocorrelated and dependent. The volatility of the stock markets returns is presented by clusters and it is also characterised by asymmetry because it has big values in the periods of downturn of the

market and low values during in the period growth of the market. The features of return and risk of these stock markets imply the use the heteroscedastic models. To obtain information about the transmission of return and volatility between stock markets the GARCH-BEKK multivariate model was used.

As regards the return we can ascertain that all stock markets have returns which depend on their own returns from the previous day. The Baltic stock markets also have returns that are dependent on the returns in the Euro Zone, fact which confirms the "global centre" hypothesis. The transmission of return from the Euro Zone towards markets from the Baltic countries is unidirectional. The return of the Riga market is also influenced by the return of the Tallinn and Vilnius markets and the return of the Vilnius market is infuenced by the return of the Tallinn market. Thus, we can say that the emerging markets are also influenced by neighbouring emerging markets.

As concerns the volatility of a stock market, it can be influenced both by shocks (ARCH effects) and by previous volatilities (GARCH effects). The conditional variance from the Euro Zone is determined by its own previous volatility while the Baltic stock markets are determined both by their own shocks and by their own previous volatilities.

The study shows that there is a unidirectional transmission of shocks between the Euro Zone market and the Vilnius stock market as well as unidirectional transmission of shock from Riga to Tallinn. The shocks are not transmitted between the Euro Zone stock market and the Riga stock market. There is also a unidirectional transmission of shocks from Riga to Tallinn.

The bilateral transmission of volatility is between markets from the Euro Zone and markets from the Baltic countries. There is bilateral transmission of volatility among the Baltic countries (Riga and Vilnius) and unilateral volatility transmission from the Tallinn market towards the Riga one and from Tallinn to Vilnius. The results prove that these emerging markets relate to the Euro Zone market from the point of view of volatility. Thus the Baltic countries are integrated in the European Union as far as volatility is concerned.

Asymmetric responses of volatility to own shocks are identified on all markets except for the Tallinn market. The asymmetric transmission of volatility is bidirectional between Vilnius and Tallinn and unidirectional between Vilnius and Riga. Is not asymmetric the transmission of volatility from the Euro Zone to the Baltic countries.

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Turkey's and Iran's Policy towards Central Asian Countries

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Abstract

Due to its geographical location, Central Asia is a "gateway" strategically important to the Eurasian continent. Tendency of maintaining an intraregional collaboration is an important asset in neutralizing the negative effects of events in Central Asia, especially on the danger of including the states in the region in the sphere of influence of great powers, which have regional or global ambitions. Overcoming the isolation geography and the attempt to turn the region into a transit corridor for interstate and intercivilizational communication should become the main priority of all states in Central Asia.

The aim of the paper is to present, in a concise manner, some of the main elements that have created instability in the Central Asian area, focusing on two very strong countries: Turkey and Iran. In fact, the present work presents the policies of Iran and Turkey towards countries of Central Asia, fact which inevitably has led to conflicts between them, sometimes hidden other times for all to see, the more so as they are part of alliances that are directly opposite.

Key words: economic security, geopolitics, resources.
J.E.L. classification: F02

1. Introduction

Security in Central Asia represents a subject upon which many analysts have covered, it is territory where external powers can engage in political games for power. The events following September 11 have created a new reality, as the importance of that region grew. The picture drawn up back then has changed the ways in which political games were played, while, the decisions of those games remained mostly the same.

The instability in that region is emphasized by the existence of two very powerful neighboring countries, Turkey and Iran. The two, hold cultural, economic and religious interests in the region, while at the same time being two relatively vulnerable states as concerns interior and geopolitical elements.

Throughout time, Turkey and Iran have represented political pilons that were extremely important in the region, strategic players that were highly influential in the region.

2. Theoretical background

The research and the presentation of the events were carried out on the basis of an extensive documentation that includes official documents (agreements, conventions, treaties and diplomatic correspondence, studies and articles), regardless of where they were published (Romania, Russia, Turkey), which highlight the various aspects of the political-diplomatic and economic relations of the Central Asian states.

3. Research methodology

The approach to some aspects about the economic policy of Turkey and Iran towards countries of Central Asia is the result of an empirical documentary analysis conducted by studying and analyzing existing documents in the current period, regarding the economic security, the economic position of Iran and Turkey regarding Central Asia.

The analysis of events was completed by reports, statements and memoirs of Azerbaijani and foreign politicians who had leadership positions, thus influencing the conduct of events, or even simple information of various officials or specialists, taken from official websites of the European Union; the TRACECA project; Government of Turkey; the Global Security Organization; Energy Information Management Organization; International Monetary Fund; The Government of Uzbekistan; the Azeri diaspora in the USA.

4. Findings

4.1. Iran and Central Asia

Ever since the existence of the Soviet Union, the Russians hungered for the southern part of Iran, and after the dissolution of the Soviet Union the attention shifted towards the north of the country. And thus, a new conflict had begun for those lands. At the same time Iran wanted to transmit to the North a piece of its energy. Now, however, they want to transport some of their energy to southern Iran and from there direct it to world's consumer markets. During the existence of the Soviet Union, Iran was always concerned about the ideological intervention and destructive influence of the communists. In those days, ideology was a main lever for action, and now this role has been passed on to the economy. During the Soviet era, Iran opposed its old and powerful neighbor. But now this old and strong neighbor has turned into some new neighbors. And finally, during the Soviet Union, Iran was considered a solid base for enemies of the U.R.S.S., that is, America and Israel. But now, some of the newly created republics have become the basis of these two countries and pursue a strategy opposed to the Islamic Republic of Iran. (Kullai, 1999, p. 10).

In other words, a new situation has arisen, which of course contains many favorable moments and serious threats. Due to the favorable geopolitical situation, Iran has an exceptional place for the creation of large roles in the region in different domains and themes. In order to turn this potential advantage into reality, fair political decisions must be made. It seems, however, that so far these privileges have encountered great obstacles and problems. The recently signed Baku-Tbilisi-Djeihan contract between Azerbaijan, Turkey and the United States is an eloquent example of this. This contract weakens Iran's basic principle, which is to guarantee peace and development of trade in the region. As a result, Iran loses its historical role, and the region becomes a sphere of rivalry between different forces, and even Iran itself.

After the split of the Soviet Union, a security vacuum formed in the Central Asian and Caucasus region, which could be filled with the influence of three main rivals of the USA, namely China, Russia and Iran; Encouraging competition and clashes in northern Iran may weaken Iran's strategic location and the geographical, economic concentration of US rivals in the Persian Gulf. Given that in the next century the forces of states will consist of the economy, information and communication, domination of Central Asian resources and markets may become an effect factor; Due to economic weakness and fear against these military forces, the countries of the Central Asian and Caucasus regions do not agree to create and develop their independent and well-armed armies. They chose the policy of "alliance" with the big non-regional forces to save their defense expenses. Tajikistan, which is a long way from Europe, is a member of the European Cooperation, while Kazakhstan and Uzbekistan have signed contracts with the United States. (Elahi Kullai, 1999, p. 10). US leaders maintain that under current conditions, NATO's move to the east will fill the region's security vacuum and leave Iran, China and Russia to trade with America. The republics mentioned will surely and voluntarily want such cooperation, for example, Azerbaijan, invited America to move its military base Ingerlik to the island of Apsheron. These situations contributed to America taking the first step in taming the Islamic Republic of Iran. With all its strategic privileges, Russia maintains the closest relations with Iran. Russia, like Iran, considers the Caspian Sea to be a closed sea, where the laws of free trade by sea are unacceptable.

In addition, Russia is very concerned that some republics, such as Uzbekistan, Turkmenistan and Azerbaijan, are aiming for the United States. Russia believes that the evolution of NATO and US activity is causing damage to it. From a historical point of view, the policy of the Russians towards Iran has never been close until now, they remember the contents of the "Holesta", "Turkmenceai" and "Tilisit" agreements, as well as the 1907 contract, the 1915 contract and the creation of disorder in Azerbaijan and Kurdistan after World War II. Apart from this not at all solid reputation, in the present material world, national interests and relative advantages are the main determining factors. (Xuşang, 1999, p. 7)

Iran is in a political and geographical position that is very favorable, because this country sits in a region where over 70% of the world’s strategic energy is. The climatic diversity, the large amount of high and mean quality work force, means of communication, policies of collaboration, avoiding mixings, high and powerful diplomacy and many others, surely make the balance of power tilt in Iran’s favor. All these potential possibilities can be efficient only when they are turned into a factor of national power. Turning potential possibilities into efficient elements of acting, requires political wisdom and exceptional technology. But sadly, in Iran, the state is the main power driving basic economic decisions and is the main investor in the country. And the private sector remains a weak and authority segment. After the fall of the Soviet Union, Iran’s state economy was occupied mostly with rebuilding after destruction caused by the imposed war. For such a needy economy, only the sums gained from selling oil could be enough. The five-year plan is to attract $ 28 billion in foreign capital. The unstable and oscillating income obtained from the sale of crude oil represents 80% of the foreign exchange income of the state.(Bahgat, 1998, p. 22). These high potential risks are very dangerous for foreign investment in the region. On the one hand, in the Iranian economy the main source of income is the sale of cheap crude oil, and on the other hand, it is necessary that the income obtained from the sale of crude oil in the south be spent on investments of a similar position in the north of the country. These difficulties hinder Iran's qualitative growth in Central Asia. For example, the state's foreign exchange earnings from crude oil exports fell by about $ 11 billion in 1998. Despite these fluctuations, the state is obliged to repay the loans received. In addition, the emergence of large-scale problems, such as: the employment crisis (jobs) (800 thousand new professions are needed for a year), unemployment and inefficient employment and, in general, the increase in the requirements of young generation (65% of the entire population of the country) make the country face great difficulties in terms of security. Of course, in these awkward and unstable situations, there are serious restrictions on participating in major world auctions. Despite the uncomfortable conditions, Iran's economic efforts continue to move very slowly in the region.

4.2. Turkey and Central Asia

In the Central Asian regional policy, the Turkish factor is a phenomenon that made headlines in the early 1990s. The breakdown of the USSR has produced considerable changes in global and regional geopolitics. Ambitions affect the most important regions of Eurasia: the Balkans, the Black Sea and the Aegean Sea, the Eastern Mediterranean, the Far and Near East, the Caucasus, Crimea, the Volga Region, part of the Urals, southern Siberia, Central Asia and Sintzian. Now, however, the Turkish ambitions in the 1990s do not seem so justified. However, this factor has not disappeared, the respective direction in Turkish foreign policy is not closed and this factor must be taken seriously.

The initial premise for pursuing such a policy became the assumption of the Turkish leadership that with the disintegration of the Soviet Union and the weakening of Russia came a unique chance to restore in new forms its political, economic, cultural influence within the borders of the former Osman Empire, and to create a strategic inter-Turkish unification. There are six sovereign states in the world (Turkey, Azerbaijan, Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan), where the Turkish ethnic groups are the bearers of the state organization, eight national republics and autonomies in Russia (Bashkoostan, Kabardino-Balkaria, Karachay-Cherkessia, Saha-Yarutia, Ciuvasia), Tatarstan, Chuvashia), Ukraine (Crimea) and China (Sinitzian-Uyghur Autonomous Region), as well as an unrecognized Turkish republic - Northern Cyprus. Originally, close to the Turkish peoples, the representatives of the Altai language family have a sovereign state

(Mongolia), four autonomies in Russia (Altai, Buritia, Tâva, Hakasia) and one in China (Inner Mongolia Autonomous Region). (Hidayatov, 2007, p. 15)

Turkey's policy is aimed at creating the institutional basis for global Turkish integration, the formation of a Turkish economic and general cultural space, capable of providing a new market for the Turkish economy, and becoming a basis for a geopolitical blow to Greece, Russia, Iran and China. To such initiatives of Turkey, we can also add ideas of creating regional micro-blocs such as "Caucasian House", "Islamic Confederation of the Caucasus", "Chechen-Dagestan Islamic Confederation", "General Eurasian Caucasian Market"; Georgia-Ukraine-Azerbaijan-Moldova Regional Economic Union (GUAM); Black Sea Economic Collaboration (BSEC); Central Asian Union (ACU) of the Central Asian Republics and Kazakhstan. Turkey feels a strong support from the US strategic ally. Turkish analysts believe that all Euro-Asian regional and continental security circles (including Southeast Europe, the Balkans, the Black Sea, the Adriatic and Aegean Seas, the Eastern Mediterranean, the Middle East, Middle Asia, the Caucasus and Central Asia) overlap and intersect in the place where Turkey is located.

In a very near future, the "Western and Eastern" opposition will have a tendency to worsen in the Balkans, in the Middle East and in the Caucasus – taking into consideration NATOs plan to further into east, the great political games being played around the Caspian Sea, the communications war for control of the former socialist and soviet space and the geostrategic modifications in southern countries of the former USSR and Eastern Europe.

Washington has shown its concern not that much with the routes of oil and gas from the shores of the Caspian Sea, that is with the idea of strategic communication in the region, of the elimination from the Caspian projects of Iran and Russia, and the weakening of its role in the Balkans, the Middle East, the Caucasus and Central Asia. The USA as world leader, is moving its sights towards the Orient and working hard to advance into Eurasia. And in this endeavor, they will need an ally such as Turkey, because the geopolitical strategy of the capital Ankara, an Ankara that is pro-west – the Balkans and the Orient, are most part of Eurasia.

Washington is trying to use the Balkan war and the ambitions of Turkey and Eurasia as a counterbalance to a united and strong Europe, as an attempt to preserve and strengthen NATO not only as a simple military-political bloc, but also as a single reformed security structure, called upon to ensure that the United States has the opportunity to exert political and military influence over Europe. The Balkans have become an original training ground for international political action for problem solving, similar to those in both Russia and the CIS.

Ankara assesses the current economic situation in Russia from positions of short- and long-term interests. In the short-term plan, Ankara is interested in obtaining from Russia certain financial aid expressed in the purchase of real estate, shares of companies known to be profitable, the granting loans to companies and firms trading with Turkey, to obtain from Moscow some tangible concessions in regional policy and, above all, in terms of presence in the Crimea, Trans-Caucasus and Central Asia, as well as in terms of geo-economic projects of trans-communications.(Dosimov, 2007, p. 26)

In the long run, Turkey sees Russia as more of an economically developed country - a source of raw materials and a market for its production. Turkey would like to reach some political agreements, which would ensure a more favorable regime in Russia and throughout the post-Soviet space.

For now, Turkey's resources - even with US support - are not enough to lead games of this magnitude. It would seem that this was only possible in the early 1990s, when the situation in Central Asian countries after the crash of the U.R.S.S. was particularly difficult and attracting their leaders to its side could only be achieved through promises of very modest loans and investments. Now the situation has changed. Which, however, does not eliminate the need to oppose Turkey's activity in the region, which seems undesirable for Russia.

5. Conclusions

The heightened fragmentation of Central Asia, amplified by the intervention of the great powers, led Zbigniew Brzezinski, an American specialist in international relations and national security adviser, to call it the "Eurasian Balkans" (an area, therefore, marked by a power vacuum,

ethnic mosaic, instability and the intervention of neighboring great powers. Brzezinski includes in this description and the Caucasus). The importance of the region is given by its natural resources, mainly oil, natural gas and mineral resources, along with its strategic position, being at the intersection of powers with interests in the area - Russia, China, Iran, Turkey. Another important aspect is the inaccessibility of Central Asia from the sea, which makes difficult the intervention or presence of the USA, the state that dominates the seas and oceans, but which is extremely difficult to counterbalance, in the Eurasian zone, Moscow's or China's power.

More recent events seem to indicate a growing interest in Central Asia from two former empires with a historical presence in this region: Turkey and Iran. The first one is during a reorientation in foreign policy towards Asia following the failed coup attempt in Ankara and the repression that followed. Iran will become increasingly influential in the area amid the collapse of its neighbors Afghanistan and Iraq following US intervention, on the other hand, following the recent lifting of international sanctions on Tehran - following the nuclear deal with the major powers. Also, India, could be a major player in the future, but strained relations with Pakistan are blocking its route to Central Asia.

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Economic Aspects Regarding Romania's Position in the Framework of International Cooperation in the Black Sea

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Abstract

Black Sea cooperation has been fundamental on three dimensions: economic, political and military. From a military point of view, have been developed regional initiatives such as SEEBRIG and BLACKSEAFOR, the last one being a naval cooperation body comprising six countries, aiming at mutual knowledge, strengthening trust and security in the Black Sea, actions being focused on humanitarian issues, search and rescue, pollution, etc.
The purpose of this paper is to present, in a concise manner, the importance of cooperation between the states that have access to the Black Sea, the European Union, in this context, playing a key role. Romania, an EU member state, is an important player in the Black Sea region, and the issue of economic security in this area cannot be approached or solved without the support of this european organization.

As a founding member of the Black Sea Economic Cooperation Organization, Romania supports its objectives (ongoing dialogue with the EU, the Stability Pact, the fight against organized crime, the Transport Action Plan), considering that BSEC has significant potential for developing economic cooperation in the regional level, to promote stability and security, as well as to build a community of interests and values on the Black Sea.

Key words: cooperation, Black Sea, changes, economic security.
J.E.L. classification: F02

1. Introduction

As concerns aspects related to international security, international cooperation must cover a large range of risks, threats and dangers to security, no matter how these manifests. Security along the Black Sea, but also cooperation in these regions are very delicate matters, so as much as neighboring countries, but also those in the region have their own concepts of how security and stability in the region should look like.

The political, economic and military domains are essential as concerns cooperation at the Black Sea, as these represent the main interests of regional states.

At a regional level, there are mechanisms and organizations like The Organization for Economic Cooperation at the Black Sea (which operates the European Instrument of Neighbors and Partnership and the Document Concerning measures of growth and security at the Black Sea), the Conference for Regional Security at the Black Sea, the Naval Cooperation Group at the Black Sea, the South-Eastern European Brigade, the Multinational Force for Peace in South-Eastern Europe, the Initiative for Defending Borders.

2. Theoretical background

From a theoretical point of view, the paper is based on the study of several valuable works in this field, based on two very important areas, security and economics. During the paper, we used concepts as security, regional cooperation, economic cooperation, resources, etc..

3. Research methodology

The approach to some economic aspects regarding Romania's position in the framework of international cooperation in the Black Sea is the result of an empirical documentary analysis conducted by studying and analyzing existing documents in the current period, regarding the international security, the economic security, the importance of the Black Sea, Romania's position in this context.

Considering the fact that the observation is the first method of data collection used, the paper is mainly based on explanatory research. The paper highlights the way in which international security faces the tendencies of fragmentation in the Black Sea region, and in particular, the security of Europe - with a geopolitical dilemma in its relationship with it: integration and creation of stability versus disintegration and latent conflicts. It seems that the answer to these challenges lies in international cooperation based on four main elements: a spirit of partnership, support and mutual respect, the creation of opportunities for regional cooperation and positive and constructive relations with governments in the region.

The empirical research realised will open new, current research directions, being strongly anchored in the reality of today. Also, considering the complexity of the domain, I consider that there are many aspects that can be identified and used in a future study.

4. Findings

The findings of the empirical study are presented in the following subchapters.

4.1. The European and the management of regional integration

In recent years, the European Union's policy on the Black Sea region has undergone significant changes. The place of the disparate initiatives of the Europeans has been taken by a coordinated and long-term policy, oriented towards achieving clear objectives. (Gavrilă, 2009, p. 33*).*

As part of the strategy, the EU intends to rely mainly on Romania and Bulgaria. The European Union is making substantial efforts to expand its presence on the Black Sea, which is considered a link between Europe and the Caspian Sea, the latter being extremely rich in energy resources.

In addition, the Black Sea region has gained key importance in terms of control over transport arteries, gas and oil pipelines, to which Europeans are paying close attention to ensure their energy security. The loyalty of potential partner countries contributes to the promotion of EU interests. If Romania and Bulgaria are already promoters of EU policy in the region, Georgia, Azerbaijan, Armenia, the Republic of Moldova, but also Turkey provide political support to European initiatives. Instead, the interests of Russia and Ukraine, two major Black Sea states, are not taken into account, as the two countries being left out of the EU project.

4.2. Romania's interests in the region

As the process of opening up and connecting the region to the Euro-Atlantic community is in its infancy, Romania can contribute to its development and capitalize on the opportunities it offers. This requires a coordinated, consistent inter-institutional policy, with defined medium and long-term objectives, based on the following overriding interests: consolidating, in the eastern proximity of Romania, a stable, democratic and prosperous area, by opening the Black Sea region to Euro-Atlantic cooperation and integration; designing Romania's regional role and its favorable economic and strategic positioning; consolidating Romania's profile as a substantial and constant contributor to the elaboration and application of NATO and EU policies towards the Black Sea region.

The Romanian approach to the Black Sea region is a multi-vectoral one, which involves concerting bilateral efforts with regional and Euro-Atlantic ones, using a wide range of tools in various fields of activity and attracting private economic partners and civil society in tandem with Romania's regional actions.

The principles that form the basis of the Romanian approach are: multilateralism, transparency, pragmatism, complementarity, synergy and flexibility. Based on these principles the following objectives will be looked after: projecting Romania's role in the project logic (democratic foundation, regional cooperation with western implications, integration; flexible politics, multi-vector and doubled by a long term arrangement as well as financial one); promoting multilateral solutions to regional problems and promoting regional cooperation with the logic of EU and NATO politics (good neighbors and democratic security); choosing NATO and EU in the efforts of democratic change and stability in the Black Sea region, as well as attaching this to western values and ideologies; developing, including with the help of the US or that of NATO allies, projects of cooperation by a small number of states interested in the region, so that the rest can attach later on, at any time, once an interest to cooperate is found; cooperating and coordinating with allies that have similar interests in the region: USA, Great Britain, Poland, the Baltic states; attracting Germany, France, Italy into regional projects; identifying projects that can be made with Russia.

A partnership with relevant non-governmental actors from Romania, USA and Europe for the promotion of regional and bilateral projects favorable to Romania's interest in the Black Sea area. Romania will act to promote its interests in the Black Sea region by: strengthening regional security and stability (combating cross-border risks, securing the eastern land and sea border, resolving frozen conflicts); sustainable economic development and capitalization of business opportunities; promoting a strategy for the Black Sea region, generating the deep and coordinated involvement of European and Euro-Atlantic organizations in the region. (Gavrilă, 2009, p. 33)

Democratic options and reform processes initiated in the Black Sea region are still affected by internal interests and external influences in order to preserve an outdated status quo. The tension between the new trends and the risk factors must be carefully controlled because it can potentiate both the salutary evolutions and the disaggregation processes.

In this sense, we can identify some opportunities that our country has: Romania's membership with NATO, the EU opens the possibility of capitalizing on the tools available to these institutions and influencing their policies in the Black Sea region, in the sense of Romania's interests in this area; the pro-European orientation of Ukraine, Georgia and the Republic of Moldova can be used to influence their conduct in the region; creation of the European Neighborhood and Partnership Instrument which will finance joint cross-border cooperation projects between EU Member States and neighboring countries.

The European Neighborhood and Partnership Instrument will have, according to the European Commission's financial proposals, significant sums for the development of regional cooperation (among eligible states are also those from the Black Sea area) and has the merit of harmonizing the rules for granting / implementing projects with EU funding; the Black Sea region occupies a central place in the regional strategies of major international actors. Through the expertise provided to them, Romania can contribute to the attenuation of regional rivalries and to the development of cooperation reflexes in the region; the prospect of placing American military facilities on the Romanian Black Sea coast, as part of a broader process of consolidating Romania's status as a privileged interlocutor of the USA in the Black Sea issue.

In achieving these objectives and interests, a whole series of obstacles and vulnerabilities are identified: The Black Sea region is a space of multi-civilizational coexistence, in which, historically, conflict situations have delayed the formation of an authentic culture of dialogue and cooperation. The extensive Caucasian space, adjacent to the region, marked by outbreaks of tension and conflict, affects the availability of regional and international actors to get involved in joint projects; national elites have so far demonstrated difficulties in conceiving regional cooperation as a vehicle for promoting national interests in a non-competitive logic, as opposed to developments in the Baltic Sea and Central Europe.

Any comparison between the functionality and the grandeur of the Visegrad Group, for example and GUUAM shows the weakness of regional formats; exclusive approaches concerning the Black Sea of certain regional states and their opposition to the involvement of other outside actors into this problematic; the tendency of some regional states to become the main poles of attraction for western powers, despite regional initiatives, because of their recent pro-European reorientation; the lack of sense both at euro-Atlantic and regional levels concerning the implication levels in the region and the perspective that is insufficiently built up (be it on a long term) to transform the

Black Sea into an inland sea of the euro-Atlantic geographic space; the perception in some European and Euro-Atlantic environments that security risks in the Black Sea region do not have a direct impact on the West and that they can be sufficiently managed by riparian states; the constraints imposed on the EU's external action by internal difficulties (non-ratification of the European Constitution in France and the Netherlands, lack of agreement on the EU's financial perspectives for 2007-2013, increasing reluctance of European public opinion to continue the enlargement process); the risk of remaining a de facto Romanian territory outside the European transport corridors and the diversion of the main flow of goods from Europe to the areas adjacent to the Black Sea, on routes around Romania (lack of regular direct connections between Constanta and Mangalia ports and other Black Sea ports) maintaining hot-spots of conflict as ways of obstructing the European and democratic path of the states in the region; incidence in the region of the competitive interests of some actors of global importance; the tendency of some neighboring states to limit the approach of the region's problems to the frameworks offered by the existing regional instruments, although they have demonstrated their limitations in certain respects.

4.3. Economic, political and military cooperation

The Black Sea Economic Cooperation (BSEC) initiative was officially launched by the signing of the Istanbul Declaration on June 25, 1992. The founders of BSEC are eleven states: five Balkan countries (Republic of Albania, Republic of Bulgaria, Hellenic Republic, Romania, Republic of Turkey), three riparian countries (the Republic of Moldova, the Russian Federation, Ukraine) and three Caucasian countries (the Republic of Armenia, the Republic of Azerbaijan and Georgia).The importance of the region is given by human and natural resources, the potential of energy sources, especially oil and gas and location strategically significant transit.

The evolution of economic cooperation around the Black Sea took place in the following stages:

- the first, of training, without results and without a clear organization, lasted until the meeting in Bucharest, in 1995, when the foreign ministers adopted an "Action Plan" which led to the consolidation of the cooperation mechanisms;
- in the second, the system of the Ministerial Troika was introduced, joint funding of the Permanent International Secretariat (PERMIS) in Istanbul began, meetings were intensified at all levels and the BSEC Charter was signed in Yalta on 5 June 1998;
- after the signing of the Charter, the BSEC assumed all the characteristics of a regional international organization and took an institutionalized form, with a wide variety of cooperation structures and a large number of bodies empowered to adopt documents of international value. On April 30, 1999, on the occasion of the Meeting of the Foreign Ministers of the BSEC member countries in Tbilisi, the Organization of the Black Sea Economic Cooperation was effectively established, following the deposit of ratification instruments by 10 member states, including Romania.

Since that date, BSEC has become a regional structure for economic cooperation. The BSEC has acquired observer status at the UN since October 8 1999, following the adoption of Resolution A/54/5. The two documents adopted in Istanbul on 25 June 1992, Declaration on Black Sea Economic Cooperation and Bosphorus Statement, indicate, among the main objectives of the BSEC, the acceleration of the economic and social development of the Member States with a view to their integration into the European Union, arising from the geographical proximity and complementarity of national economies.

The inclusion of other important objectives, such as political and security issues, was deliberately avoided. On June 25, 2002, in Istanbul, the heads of state and government of the Black Sea region marked, in an extraordinary meeting, the tenth anniversary of the creation of the Black Sea Economic Cooperation.

After defining priority areas for cooperation, BSEC focuses on regional development projects, among which the most important are: the interconnection of electricity networks and connection to Western European systems; the development of transport infrastructures, by extending to the East the great European highways; construction of pipelines for the transport of oil and natural gas; modernization and interconnection of communication systems (under construction).

Romania's presence in NATO partially modifies the strategic concept in relation to the Islamic East and the ex-Soviet space, expanding NATO's capacity for action towards the Black Sea and Caucasus basin. In this sense, Romania is already considered a strategic stronghold on the southeastern border of the Euro-Atlantic area, in the vicinity of the Black Sea, and must become a spearhead to the east of Euro-Atlantic allies to preserve and even develop interests in the area.

5. Conclusions

In conclusion, the theoretical study showed that the Black Sea was a connecting element between East and West, and between North and South, constituting, at the same time, as a wider border, buffer zone type, between them. In conjunction with these valences, as human mobility developed more and more, the Black Sea began to be one of the most important connecting points for trade routes in general, and in the last century and especially today, one of the the main junctions of the routes of energy-carrying products.

It was found, as a matter of fact, that this area prospered and was the most stable in the periods when it was not isolated and was connected to the world or regional trade network. In recent decades, but especially after 1990, the Black Sea area has gained even greater importance based on a number of new elements of the international political, economic and military situation.

Thus, new values generated by the international situation and, especially, by the regional interests of the main international players were added to those known from history: emphasizing the geostrategic importance caused by the contact position of the three tectonic plates of maximum strategic importance today - the West (with NATO and the EU), the (predominantly Islamic) Orient and the ex-Soviet space (still under the control and influence of the Moscow power centers); emphasizing the need to develop routes of energy-producing products south of the Black Sea, to ensure the primary energy base of the West, as an alternative to those already existing on the northern side of the Black Sea, controlled, to a large extent, by Moscow.

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Considerations Regarding Shadow Economy and Tax Evasion

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Abstract

A serious problem facing all countries of the world today is the hidden economy and tax evasion. Estimating the size of the hidden economy is a challenge for economists and not an easy task. No country can fully control illegal economic activity. There are currently several estimation methods, but the most commonly used in specialized studies is the MIMIC method. This work begins with a presentation of the latest analyzes on the estimation method of the shadow economy: MIMIC. The work further analyzes the evolution of the hidden economy in the EU member states and in our country. In the last part, we focus on the connection between the hidden economy and tax evasion and some conclusions regarding this aspect are presented.

Key words: shadow economy, MIMIC, tax evasion
J.E.L. classification: C51, H26

1. Introduction

Tax evasion associated with the hidden economy is a real threat both to any economy and to all participants in it. In this paper we will mainly focus on highlighting the method by which the size of the hidden economy can be calculated and what are its negative effects.

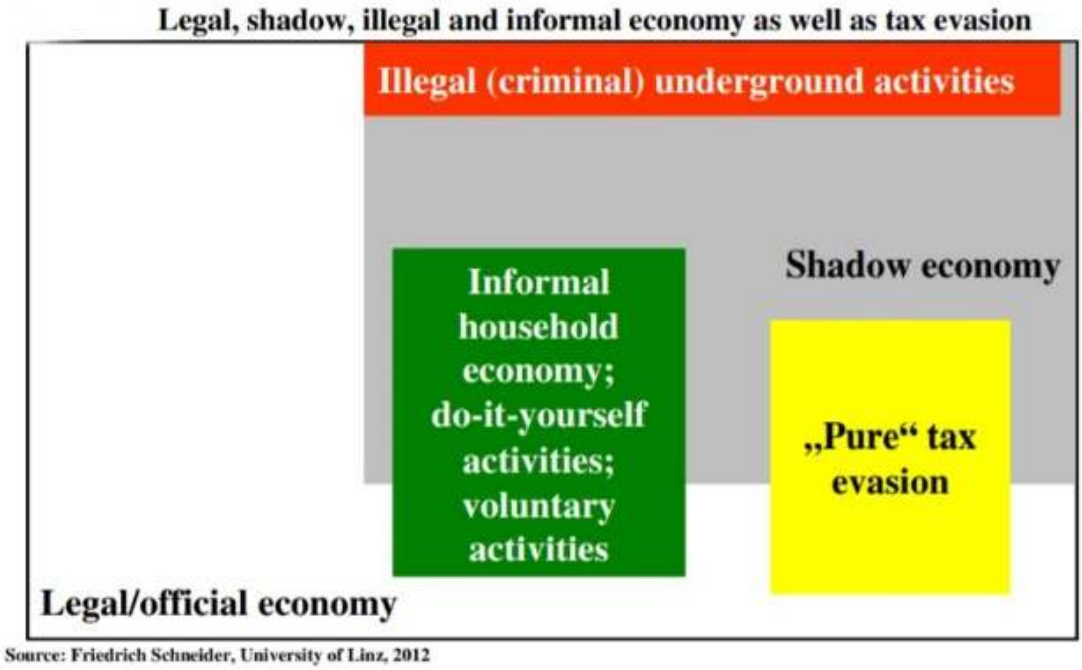
The underground economy is, in its nature, hard to measure because the agencies involved in this type of activities try to remain undercover. Due to its economic and political importance, there is a high demand for information in this area. On top of that, the overall economic activity is essential in formulating the economic policies, which can respond, in space and time, to both the economic development and fluctuating trends. In order to make the best decisions to reduce the negative implications on the economy, each state must have an approximation of the size of the hidden economy.

The shadow economy activities imply the non-payment of the taxes and contributions, so that the factors that determine the tax evasion affect, of course, the shadow economy as well.

The shadow economy includes the entire variety of goods and market services, which deliberately lays hidden for the following motives (Schneider, 2016):

- To escape payment of taxes
- To escape payment of social security contributions and taxes
- To escape specific legal standards of the employment market: minimal incomes, maximum number of working hours, standards' protection
- To escape obeying particular administrative procedures and criteria: completing in the statistical questionnaires or other administrative forms.

Legally, *the tax evasion,* translates as: "by all means, partially or entirely omitting to pay the taxes or other amounts of money owed to the state budget, to the local budget, to the state social security budget and to the extra budgetary funds, by national and foreign natural and legal persons, referred to as taxpayers..." (Law 241/2005).



Source: Schneider, "Shadow Economies Around The World With Latest Results (2019) For Romania And Her Neighboring Countries: What Did We Learn Over The Last 20 Years?" dated September 2019

2. Literature review

Regarding the shadow economy and fiscal evasion, there is a broad literature published by the World Bank, Transparency International and many national and international institutions worldwide. Despite the broad professional literature for the shadow economy, the economist who has studied the most this field and whose works are often cited in specialized studies is Friedrich Schneider, with his work "Shadow Economy and work in the shadow: What do we (not) know" (2012).

Defining the shadow economy has been a challenge for all economists (Schneider and Enste 2000, 2002; Alm, Martinez-Vazquez and Schneider 2004; Feld and Schneider 2010; Schneider and Williams 2013; Schneider 2015;). A definition often used in many works refers to all currently unregistered economic activities that would contribute to the officially evaluated Gross National Product if observed.

In recent years, work in the field of the hidden economy has multiplied and we have through them sufficient data for many countries (Gerxhani 2003, Feld and Schneider 2010, Schneider 2011, Schneider and Williams 2013, 2015, 2017, Williams and Schneider 2016, Hassan and Schneider 2016).

3. Research methodology

For a brief description of the MIMIC methodology (Multiple Indicators-Multiple Causes), we start from the premise that the effects of the underground economy are felt simultaneously in production, labor and financial markets (Schneider et al, 2010). The methodology take into account many causes that leading to the existence and size of the shadow economy, but withal more effects over time. In this methodology, the shadow economy is defined by a variable latent (not directly observable, called variable unobservable), which are part of some functional relationships, with other variables observable (measurable). The observable variables in these functional relationships are causal (explanatory) variables and indicators.

The model consists of two parts: the structure equation and the measurement model. Structure equation expresses, through a linear regression relation, the latent variable as a function of causal variables. The measurement model consists of several regression equations linear, in which the indicators are expressed according to the latent variable. In order to determine the size of the shadow economy, certain steps are required (Schneider et al, 2010). The first step consists in the statistical verification of the connections between the latent variable-the causal variables and indicators-latent variable. After identifying the relationships and estimating the parameters, it is calculated the MIMIC index, based on the results provided by the model. This method offers only relative, not absolute, results of the size of the shadow economy.

In recent years, the MIMIC method has been used more and more often to determine the size of the shadow economy.

4. Size of the Hidden Economy

How to calculate the dimension of a hidden economy? The means may be either direct, as questionnaires (at a microeconomic level), or indirect (at a macroeconomic level). Here are a few methods pertaining to the latter category:

-Discrepancy between the national expenditure and revenue, according to the statistical data

-Discrepancy between official and unofficial labor force

-Discrepancy between national transactional volume, namely the nominal Gross National Product (GNP) (price x transaction) and the official GNP

-Increased demand for foreign currency

-Discrepancy between the Internal Gross Product (IGP) and the electricity consumption

There is also another approach, which takes into consideration the different factors of the underground presence and growth, such as the multiple effects of the underground economy along the time (the MIMIC method). The main causes, which determine people's tendency towards hidden economic practices, are (Schneider, 2016):

✓ *The burden of the taxes*. Together with the increase of the labor force prices (concomitantly with the income decrease), raises the temptation for the hidden economy, the lure of avoiding paying the taxes.

✓ *The fiscal morality.* A better fiscal morality and more powerful social norms can decrease the potential of individuals working illegally.

✓ *The quality of the public institutions*. The efficiency and the lawfully implementation of the Fiscal Code and of the government policies play a big role in the decision to work legally. The existence of a high bureaucracy, associated with corrupted government officials, lead to the extension of the hidden economy. Given this, it is recommended that the public institutions become stronger, in parallel with aligning the fiscal laws to the preferences of the voting majority.

✓ *Unemployment rate*. The tendency towards the hidden economy increases together with the unemployment rate and vice versa.

✓ *Self-employment.* The bigger the self-employment rate is, the bigger the underground economic activities can be.

✓ *The public sector services*. As the size of the hidden economy grows, public revenues decline and the state can no longer provide, at the same level, the public goods and services. As a result, this fact increases the taxes for legal and natural persons, notwithstanding the quality of public goods (public infrastructure) continues to corrode. The consequence is an even stronger motivation for involving to the underground economy. The undergorund economy IGP percentage from the European Union countries could be calculated using the MIMIC method.

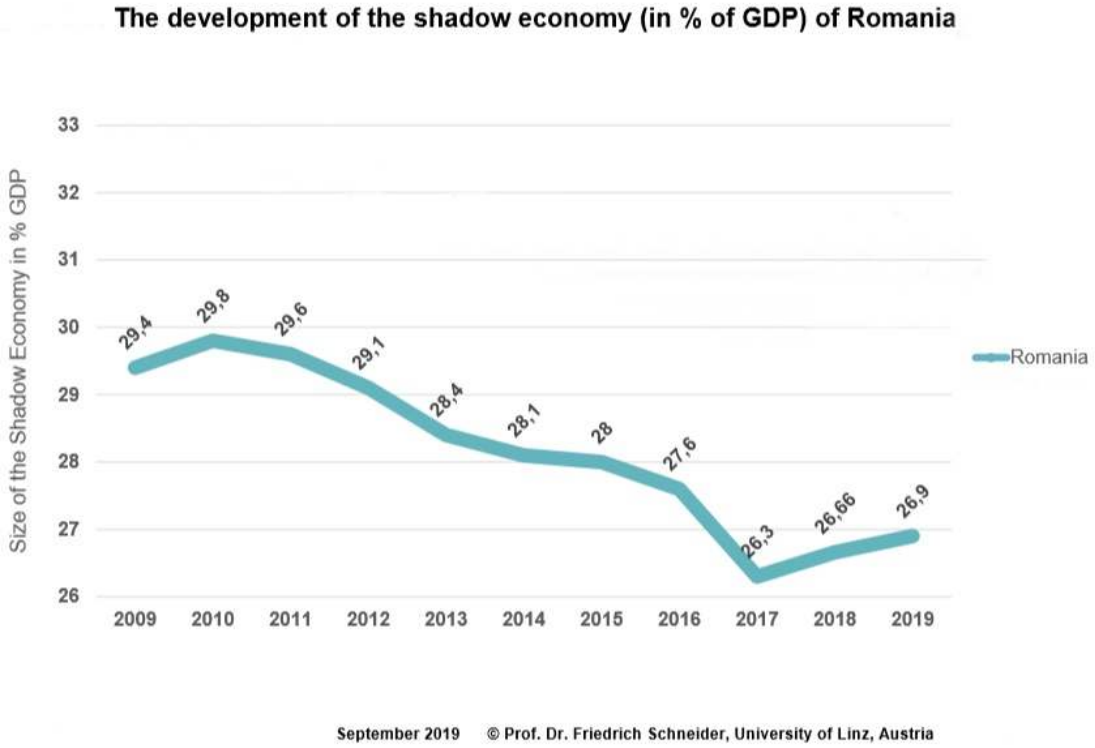
If we analyze the data below, we can notice that our country is situated second place, at a community level, in terms of IGP hidden economy percentage (27,6% in 2016), behind Bulgaria. For our country, it is possible to observe, from this table, a decrease of the percentage held by the hidden economy in the analyzed period.

Table no. 1 The Size of Shadow Economy in Europe Union

Country / Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	10.8	11.0	10.3	9.7	9.4	8.1	8.5	8.2	7.9	7.6	7.5	7.8	8.2	7.8
Belgium	21.4	20.7	20.1	19.2	18.3	17.5	17.8	17.4	17.1	16.8	16.4	16.1	16.2	16.1
Bulgaria	35.9	35.3	34.4	34.0	32.7	32.1	32.5	32.6	32.3	31.9	31.2	31.0	30.6	30.2
Croatia	32.3	32.3	31.5	31.2	30.4	29.6	30.1	29.8	29.5	29.0	28.4	28.0	27.7	27.1
Czech Republic	19.5	19.1	18.5	18.1	17.0	16.6	16.9	16.7	16.4	16.0	15.5	15.3	15.1	14.9
Denmark	17.4	17.1	16.5	15.4	14.8	13.9	14.3	14.0	13.8	13.4	13.0	12.8	12.0	11.6
Estonia	30.7	30.8	30.2	29.6	29.5	29.0	29.6	29.3	28.6	28.2	27.6	27.1	26.2	25.4
Finland	17.6	17.2	16.6	15.3	14.5	13.8	14.2	14.0	13.7	13.3	13.0	12.9	12.4	12.0
France	14.7	14.3	13.8	12.4	11.8	11.1	11.6	11.3	11.0	10.8	9.9	10.8	12.3	12.6
Germany [1]	16.7	15.7	15.0	14.5	13.9	13.5	14.3	13.5	12.7	12.5	12.1	11.6	11.2	10.8
Greece	28.2	28.1	27.6	26.2	25.1	24.3	25.0	25.4	24.3	24.0	23.6	23.3	22.4	22.0
Hungary	25.0	24.7	24.5	24.4	23.7	23.0	23.5	23.3	22.8	22.5	22.1	21.6	21.9	22.2
Ireland	15.4	15.2	14.8	13.4	12.7	12.2	13.1	13.0	12.8	12.7	12.2	11.8	11.3	10.8
Italy	26.1	25.2	24.4	23.2	22.3	21.4	22.0	21.8	21.2	21.6	21.1	20.8	20.6	20.2
Latvia	30.4	30.0	29.5	29.0	27.5	26.5	27.1	27.3	26.5	26.1	25.5	24.7	23.6	22.9
Lithuania	32.0	31.7	31.1	30.6	29.7	29.1	29.6	29.7	29.0	28.5	28.0	27.1	25.8	24.9
Luxembourg (Grand-Duché)	9.8	9.8	9.9	10.0	9.4	8.5	8.8	8.4	8.2	8.2	8.0	8.1	8.3	8.4
Malta	26.7	26.7	26.9	27.2	26.4	25.8	25.9	26.0	25.8	25.3	24.3	24.0	24.3	24.0
Netherlands	12.7	12.5	12.0	10.9	10.1	9.6	10.2	10.0	9.8	9.5	9.1	9.2	9.0	8.8
Poland	27.7	27.4	27.1	26.8	26.0	25.3	25.9	25.4	25.0	24.4	23.8	23.5	23.3	23.0
Portugal	22.2	21.7	21.2	20.1	19.2	18.7	19.5	19.2	19.4	19.4	19.0	18.7	17.6	17.2
Romania	33.6	32.5	32.2	31.4	30.2	29.4	29.4	29.8	29.6	29.1	28.4	28.1	28.0	27.6
Slovakia	18.4	18.2	17.6	17.3	16.8	16.0	16.8	16.4	16.0	15.5	15.0	14.6	14.1	13.7
Slovenia	26.7	26.5	26.0	25.8	24.7	24.0	24.6	24.3	24.1	23.6	23.1	23.5	23.3	23.1
South-Cyprus	28.7	28.3	28.1	27.9	26.5	26.0	26.5	26.2	26.0	25.6	25.2	25.7	24.8	24.2
Spain	22.2	21.9	21.3	20.2	19.3	18.4	19.5	19.4	19.2	19.2	18.6	18.5	18.2	17.9
Sweden	18.6	18.1	17.5	16.2	15.6	14.9	15.4	15.0	14.7	14.3	13.9	13.6	13.2	12.6
United Kingdom	12.2	12.3	12.0	11.1	10.6	10.1	10.9	10.7	10.5	10.1	9.7	9.6	9.4	9.0
28 EU-countries / Average (unweighted)	22.6	22.3	21.8	21.1	20.3	19.6	20.1	19.9	19.6	19.3	18.8	18.6	18.3	17.9

Source: (Schneider, 2016)

Schneider (2019) represented graphically which is, in our country, the tendency of the hidden economy, as a percentage of the GDP:



Source: (Schneider, 2019)

We can determine what is the value of the shadow economy in Romania, knowing that the percentage of this economy in GDP is 26,66% (Schneider for 2018) and the size of the 2018 GDP is 947,9 billion lei:

947,9 billion lei x 26,66% = 252, 7 billion lei (the value of the shadow economy in Romania, 2018).

In our country, according to art. 8 of Law 241/2005 for the prevention and combating tax evasion, constitutes a crime and is punishable by imprisonment from 3 years to 10 years and the prohibition of certain rights. In february 2020, the Senate re-examined the Law on preventing and combating tax evasion, establishing that, in case of full payment of the damage, to tax evasion for values less than 100.000 euros, the penalty can be a fine or an administrative action.

5. Shadow Economy and Tax Evasion

There is a direct link between the hidden economy and tax evasion.

The economist Peter Spiro (2005) said that among OECD countries, characterized by the highest levels of taxes, for every percent of growth is an increase of the shadow economy level of 0.25%. Likewise, Richard Cebula said that if the tax rate rises by one percentage point, the underground economy increases by 1.4%.

In the category of fiscal rules that can foster the underground economy we can find: repeated changing of tax legislation; issuance of arbitrary regulations; with the possibility of random interpretation; implementation of tax discrimination; lack of credibility of the actions of the authorities; the presence of thick legislation.

The importance of the underground economic analysis and of the tax evasion derives both from their impact on the budget balance and on the political class, as well as from the implications that they have in the overall architecture of the economic behavior:

- The insufficient financing of the social projects: education, culture, public administration, health
- Effects of political nature: failure to register an increase in the state budget, as a result of the tax evasion increase, leads to a greater fiscal pressure, to a sense of dissatisfaction with the government, which, on the following elections, will no longer receive the electorate vote
- The disloyal competition shown by the evaders to all other taxpayers.

The perception by taxpayers of the tax burden can decisively influence the phenomenon of tax evasion. In this respect, the Fraser Institute points out that the underground economy rises or falls depending on how people perceive the direct and indirect taxes, the government regulations and the government spending values.

Problems also arise when decisions are made, at the government level, regarding the level of fiscal taxes, because the analysis underlying them does not take into account the existence of the hidden economy. On the other hand, high tax rates will cause entrepreneurs to leave the legal area of activity. Serious empirical analysis of elasticities of reaction are the key to a right tax policy. It is not possible to establish a single method by which to arrive at an optimal tax policy.

6. Conclusions

As we have seen from the analysis, all countries are facing with shadow economy and tax evasion. It is important to find measures, at national and international level, to reduce the size of the hidden economy.

In Romania, there is a a reduction trend, as in other EU countries, in the share of the shadow economy after 2010 until the crisis of 2017. After this moment, we have an intensification of illegal activity in the economic field. We can come to a conclusion from this evolution, namely that entrepreneurs seek to get out of the legal zone when they face financial difficulties (determined either by a crisis, or by a significant increase in taxes, or for other financial reasons).

A measure that must be taken into account and studied in detail in specialized works, is the education of the population on fiscal morality, from the first years. Even if the level of fiscal taxes will be reduced, when there is a weak fiscal morality, the tendency to resort to the shadow economy will remain. Until the important steps are taken in this direction, a short-term solution may be to increase controls and fines.

The efforts to reduce opportunities for VAT fraud and evasion have made gradual progress - but much more work is also needed. The coronavirus pandemic has drastically changed the EU's economic outlook and is set to take a severe toll on VAT revenues (CASE, 2020). At this time, more than ever, EU countries simply cannot afford such losses. That is why we need to do more to step up the fight against VAT fraud with renewed determination, while simplifying procedures and improving cross-border cooperation.

It is imperative that international and national tax regulations be reformulated, to adapt to the new market conditions, to the economic, social and technological challenges of the 21st century. As a result of these steps, international, European and national tax systems will be reformed, as they do not have the necessary characteristics to keep up with new developments. The changes will ensure that all market participants will pay their contributions correctly.

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Vocational Teacher Productivity in Palembang: Education Production Function

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Abstract

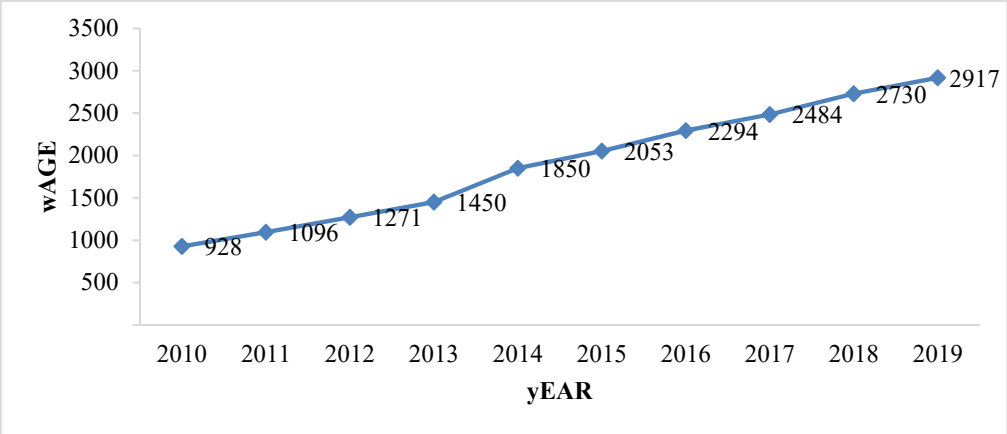
This study analyzedEducation Production Function by using human capital inputs, namely education and skills as well as wages toward output (productivity). The probability sampling method with the proportional random sampling technique was used to collect the data. 301 vocational teachers in Palembang became the sample of this study. By using multiple analysis tools, it was obtained that (1) Wages and skills had a positive and significant effect on productivity. (2) There were differences in productivity based on education categories. (3) Input determinant of teachers' productivity was skill.

Key words: labour productivity, wages, skill, education
J.E.L. classification: J24

1. Introduction

Education is one of industrial sector where direct estimates of worker productivity are available for the majority of the workforce. In recent years, educational economists have produced literature that examines productivity returns to work experience among teachers using predicted contributions to increase student test scores as a proxy for productivity (Papay & Kraft, 2015; Todd et al., 2003; McCaffrey et al., 2004). Substantial teacher productivity as input is the key in educational production function. This situation should be considered as a policy in increasing teacher productivity (Nagler et al., 2020; Hanushek & Rivkin, 2012).Increasing economic benefits become one of the policy recommendations that can be used as an effective strategy to increase teacher's productivity. In contrast, (Ree et al., 2018) found that increasing teacher wages without any conditions did not improve student achievement. These results provide recommendations for selection in teaching which influenced by changes in economic benefits. This condition is in line with empirical evidence which occurs in developing countries which was supported by field-experimental evidence from developing countries. In fact, according to (Ashraf et al., 2020) it was found that the selection of individuals under career incentives and not from social incentives leads to better results in the delivery of public services. The following figure shows teacher incentive policies which are related to the city minimum wage trends that occur in Palembang.

Figure no. 1. City Minimum Wage Trends in Palembang in 2010-2019 period



Source: Authors' contribution

Figure 1 shows that, the minimum wages increase significantly each year in general. This condition shows that wages have changed in all sectors. A person's productivity cannot be separated from wages, but what happens to an increase in wages is not accompanied by an increase in teacher wages (Hanushek, 2007). The production function of education shows that the role of wages is the main input to produce better education outcomes. Considering that, this linkage actually underlies aspects of human capital and skills, the two variables will produce a different focus which causes a varied perspective on the measurement of human capital implicitly and will describe the fundamental modeling of economic results (Hanushek, 2020).

There are many variations of literature that discuss the input of the education production function model that have similarities with this study. The similarities are related to human capital and wages. Some studies fail to identify in proving the statistical consistency of a significant relationship between teacher experience and student achievement (Blömeke et al., 2016; Gustafsson and Nilsen, 2016). In contrast with some studies that found there was a relationship between teacher experience and student achievement in secondary schools (Papay & Kraft, 2015; Ladd, 2017; Gerritsen, & Webbink, 2016). In addition to experience, education is also a major point in increasing teacher productivity (Britton & Vignoles, 2017)

2. Literature review

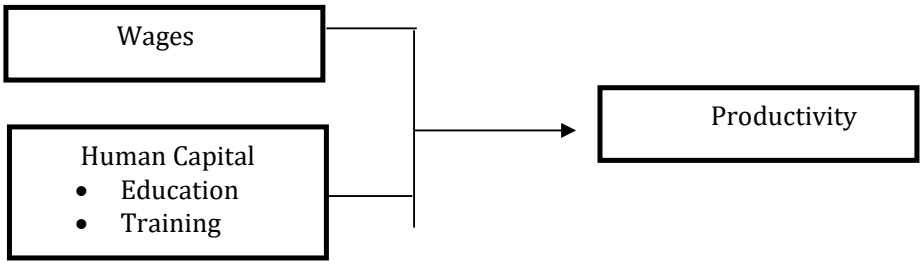
Teacher productivity in the labor economy is measured simply using the education production function model which discusses broadly the general inputs in education such as school resources, teacher quality, and family while the output is student achievement (Britton & Vignoles, 2017). The education production function has the following input variables, where (h) is the individual human capital i at the time t, which is determined by individual characteristics (X), a set of cumulative family inputs (F) and cumulative resource inputs from the education system (I).

$$h_{it} = f(h_{t-1}, X_{it}, F_{i\ldots.t}. I_{i1\ldots..t})$$

The application of the education function production model in this study uses resource inputs including wages, teacher education and training. Teacher productivity is explained mathematically as follows:

$$Y_i = f(W_i, Educ_i, Tr_i)$$

Y_i = Output (Productivity) and Input isW_i= wages , $Educ_i$ = Education andTr_i= Teacher training. The model above builds a conceptual framework relating to the relationship between human capital input and wages with the teacher's productivity which is presented in Figure 1.



The conceptual framework illustrates the effect of inputs on output. The literature on the causal relationship between low family income and educational outcomes is discussed quite conclusively (Almond & Currie, 2011). However, income has also an impact on the accumulation of human capital. Almond & Currie (2011) concluded that an increase in income, especially cash transfer programs, was effective in improving educational outcomes, while for human capital inputs both skills and educationimpact positively on education output in overall (Papay & Kraft, 2015; Todd et al., 2003; McCaffrey et al., 2004). The results of the review of some literature can build a hypothesis about the relationship between input and output in the education production function model as follows:

Table no. 1. Hypothesis

No	Hypothesis	Literature
1	Wages have a positive and significant effect on teacher productivity	(Ashraf et al., 2020; Almond & Currie, 2011)
2	Human Capital: Education and skills have a positive and significant effect on Teacher Productivity, Skills have a positive and significant effect on Teacher Productivity	(Papay & Kraft, 2015;Todd et al., 2003; McCaffrey et al., 2004)

Source: Authors' contribution

3. Research methodolody

Research on honorary teacher productivity which was measured using the use of instructional media, wages, level of education and training will affect the productivity of a teacher. Source of data used are primary data including data on the characteristics of respondents and the variables studied. The population in this study were honorary private vocational high schools teachers in Palembang. Meanwhile, 522 teachers became the sample in this study with the number of samples taken from the four highest districts above 100 teachers consisting of Sukarami, Kemuning, Ilir Timur I and Sebrang Ulu I. The method used in sampling is probability sampling, while the sampling technique used is proportional random sampling with the Slovin formula.

$$n = \frac{N}{1 + Ne^2}$$

They are explained as:
n = sample size
N = population size
e = error tolerance limit used by 5%

$$\frac{1385}{1 + 1385.0{,}05^2} = 310$$

Table no. 2. Proportion of Respondents in the Study

Sub-district	Number of teachers	Proportion (%)	Calculalation of Sample	Number of Samples
Sukarame	105	62	24	24
Kemuning	148	89	33	33
Ilir Timur I	167	99	37	37
Sebrang Ulu I	102	60	22	22
Total	522	310	116	116

Source: Authors' contribution

As presented in Table 2, number of samples that can be drawn from four sub-districts is 310 people, each from 24 people in Sukarame sub-district, 33 people in Kemuning sub-district, 37 people in Ilir Timur I sub-district and 22 people in Sebrang Ulu Sub-district I. Questionnaire was used as the instrument of data collection method as a tool in the interview. The analysis technique used is descriptive statistics and quantitative to illustrate the effect of the use of instructional media, wages, level of education and training on teacher productivity with multiple regression analysis tools. The research model is written as follows:

$$Y_i = \beta_0 + \beta_1 W_i + \beta_i Educ_i + \beta_3 Tr_i + e_1$$

They are explained as:

Y_i = Productivity (output); β_0 = Interception parameter; W_i = Wages; $Educ_i$ = Education (dummy); 1 = if they have proffesional certificate, 0 = if they don't have proffesional certificate; Tr_i = Training; $\beta_1 - \beta_3$ = Regression coefficients.

The estimation test using several test tools, namely Gauss Markov test covering normality, multicollinearity, and heteroscedasticity and hypothesis testing including F test, t test and coefficient of determination (Gujarati, 2004).

4. Results and discussion

4.1 Descriptive statistics

In general, it can be seen that none of the respondents' wages reached above average wages or reached the city minimum wage in Palembang. Respondents cannot receive wages above the city minimum wage because respondents can only teach in one school due to the specific area of expertise possessed by the teacher such as teachers who teach in vocational high schools majoring in nursing, pharmacy, motorcycle engineering, light vehicle engineering, audio video engineering, chemical industry, maintenance and repair of aircraft electronic instruments, motorcycles and aircraft frames, business travel, hospitality accommodation, mining geology and petroleum engineering. In addition, there were also respondents who teach in two schools got wages above the city minimum wage if the wages of the two schools where the respondent teaches are combined.

The results showed that the majority of respondents were undergraduate education with professional certificates. The distribution of respondents based on professional certificates is presented in table 3:

Table no. 3. Distribution of Respondents by Education

Education	Number of Respondents	Percentage (%)
S1 with proffesional certificates	162	52.25
S1 without proffesional certificates	148	47.75
Total	310	100.0

Source: Authors' contribution

As presented in table 3, it is known that the majority of respondents undertook tertiary education at undergraduate level with professional certificates were 162 people (52.25%) and 148 people (47.75%) without professional certificates. Respondents mentioned that having a professional certificate support them to work productively compared to them who only graduated in Strata 1 and not having a professional certificate.

The knowledge and skills possessed by a worker who comes from education and training will produce certain output products. The existence of training will help teachers improve their knowledge and skills, so that in the end the output produced is higher.

Table no. 4 Distribution of Respondents by the kind of the training

The number of training that was attended	Number of Respondents	Percentage (%)
1	108	34.84
2	112	36.13
3	60	19.36
4	30	9.67
Total	310	100
Average 2.03 be 2		

Source: Authors' contribution

As we presented in Table 4, Respondents who attended training above an average are 90 teachers (29.04%) and respondents who attended training below and equal to an average were 220 teachers (70.96%). Most of the respondents mostly attended 1 type of training, namely Subject Teacher Deliberative Training (MGMP), were 108 people (34.84%), while those who took part in two types of K13 training and Subject Teacher Deliberation (MGMP) were 112 people (36.13%), who attended three types of training courses (MGMP) and 112 people (36.13%) (PTK) were 60 people (19.36%) and those who attended four types of K13 training, Subject Teacher Deliberation (MGMP), Class Action Assessment (PTK) and learning models and media were 30 people (9.67%).

Table no. 5 Distribution of Respondent by the Productivity

Productivity	Media Rank	Number of Respondents	Percentage (%)
15 – 41	5, 4 dan 3	275	88.72
42 – 68	2	16	5.16
69 – 95	1	19	6.12
Total		310	100
Average	29		

Source: Authors' contribution

The estimation results shown in Table 5 explained that teacher productivity was quite low with the average result of 29%. Respondents with productivity below the average were 233 teachers (75.16%) and respondents with above average productivity were 77 teachers (24.84%). The respondents used 5 types of media learning or showed teacher productivity rank 1 by 19 teachers (6.12%) and using the media at most with 4 types of media or showing the teacher productivity rating at rank 2 were 16 teachers (5.16%) and the least using learning media with only one to three types of media or showing teacher productivity ratings at rank 3, 4, and 5 using instructional media were 275 teachers (88.72%). The table above also explained the productivity categories arranged in the form of ratings 1, 2, 3, 4, and 5. The more media used the higher rank that they got. It can be assumed that the higher the productivity of the teacher. The performance factors and the length of working hours were determined the high level of productivity produced by the teacher.

4.2 Discussion

A good econometric model must fill econometric and statistical criteria. Based on econometric criteria, the model must the classical assumption test, it means that it is free from multicolonierity symptoms, autocorrelation and heterocedasticity. The suitability of the model with statistical criteria can be seen from the coefficient of determination (R^2), the F statistical test and the t statistical test (Gujarati, 2004).

Table no. 6. The estimation result of multiple linier regression in teacher productivity

Variable	Coefficient	t-calculate value	Std Error	Significancy
Wage Education Training constanta	2,999 - 2,397 2,226 -8,068	13,583 1,602 2,003	0,000 1,598 1,173	0,000 0,010 0,046
R-Square R-Square Adjusted	= 0,659 = 0,656	D-W Hitung F-Statistic	= 1,841 = 197,051	

Source: Authors' contribution

The results of the calculation of the main model estimation of the multiple linear equations for male workers can be explained by the following equation:

Productivity = -8,068 + 2,999 W-2,397 Educ + 2,226 T

Simultaneous testing based on Table 8 shown that the value of F-Statistics> F-table (197.05 1> 2.64) it meant that wages, education, and training simultaneously affect teacher productivity. Partially, it shown that wages, education, and training had a significant effect on teacher productivity based on the probability value <Significance level α. While the Adjusted R-squared test shows that wage variations, education, and training can explain the variation in teacher productivity by 65.6 percent. The Gauss Markov test shown that the classic assumptions are rejected statistically, the estimation result shown that the model was free from the assumptions of normality, multicollinearity and heteroscedasticity as presented in Table 7:

Table no. 7. Gauss Markov Test

Testing	Probability	Explanation
Normality Test histogram	Data distribution followed a straight line	Free from Normality Problems
Variance Inflation Factor (VIF) and Tolerance Test	VIF <10 Tolerance > 0,1	Free from Multicolinearity problem
Heteroskedasticity Test Histogram	The distribution of data points were not patterned	Free from heteroskedastisiticy problem

Source: Authors' contribution

The effect of wages on teacher productivity Private Vocational High Schools in Palembang City. Based on the results of the significance test, there was a probability value of 0.000 (0.000<0.05). This value could prove that wages had a statistically significant effect on productivity. If the wages received by a teacher are greater, the teacher's comfort in working would be guaranteed. The teacher would be able to prepare more, more varied and better learning media. The teacher would also be more focused in teaching in that area and the teacher would not find another place to teach. So that teachers would have enough time to prepare another learning media. When the teacher gave so many kinds of media, students would receive the transfer of knowledge more easily and would get good learning results. When the number of learning media was used more in every learning process, it would be able to increase the teacher's productivity. It could be concluded that wages had a positive significant effect on teacher productivity.

This result is also in line with the research conducted by Ashraf et al., 2020; Almond & Currie, 2011 with their research that there was a significant relationship between wages and employee productivity. The results of this study also supported that compensation has a significant effect on productivity. Furthermore, supported by research conducted by Torberg (2010), Sojourner (2013) and Sinungan (2005) with the variables of the Work Environment, student learning outcomes, and Wages, there was an influence on teacher productivity. This mean that the higher the wage, the higher the labor productivity.

The effect of education on teacher productivity in Palembang City Private Vocational High Schools. Education is the main requirement that must be taken by someone to be able to enter the job market. The level of education was a teacher had affect the mindset, attitude and action in dealing with problems that arise, especially in work problems. People who had a higher level of education generally cope faster with the problems they face than the people with a lower level of education. Education had a function to improve the qualifications of the workforce to be more productive (Hellerstein, 2018). This was similar with Kneller's theory which states that education was a conscious effort to prepare students through guidance, teaching and training activities for their role in the future and Borjas (2016) states that human capital investment in education would generate higher income because companies are interested. Workers had higher education (more productive) so they would offer higher wages. This is intended to increase labor productivity because education, both formal and non-formal, was expected to have the ability to better understand and adapt to changes in the work environment more quickly.

In line with research conducted by Salazar et al (2016), it shown that online professional learning communities could increase teacher work productivity, increase access and flexibility as well as a combination of work and education. Supported by research results, Afrooz et.al (2010) analyzed the effect of education, skills and working capital on labor productivity. The results of this study were education, skills and working capital had a positive and significant effect on work productivity. In line with Rehman and Mughal's (2013) research,it shown that skilled workers had a positive and significant effect. But unskilled workers had a negative and significant effect on labor productivity.

It was same in the case with the study with the result that wages had a positive and significant effect on labor productivity. In addition, it was also in line with the results of Syverson (2016) that in the recruitment of new workers, the personnel could determine the minimum formal education requirements that must be met by prospective applicants. With relatively high education, the knowledge and understanding of employees would be greater so they could quickly receive new input and could increase their work productivity. In this study, the results of the significance test shown that there was a probability value of 0.01 (0.01 <0.05). This value could prove that education had a statistically significant effect on productivity. Education could increase teacher productivity through the output and input generated by the teacher through student learning outcomes and the use of learning media used by teachers in the learning process. Undergraduate education or teacher professional education in increasing teacher productivity was closely related to this study. Undergraduate education or teacher professional education would have a high enough contribution in increasing productivity.

Everyone could teach or transfer the knowledge to the students, but to make input on productivity in this research through the use of learning media. Not everyone could make good learning media, because they must have good teacher training and adequate skills. A teacher who takes undergraduate education in the field of teacher training or teacher professional education already has the knowledge in making good learning media that they got in the education process. Moreover, if the teacher had a professional certificate, the skills and knowledge that the teacher had will be much better and the teacher could certainly make various types of learning media in the teacher carrying out learning activities. When learning media was used in student learning activities, it would be more comfortable and easier to receive knowledge on the learning carried out by the teacher. From the description above, it could be concluded that formal good education would have a positive effect on increasing teacher work productivity.

The effect of training on teacher productivity on private vocational schools in Palembang City. Not only wage and education variables that could increase teacher productivity, training variables could also increase teacher productivity. The results of the significance test shown that

there was a probability value of 0.046 (0.046 <0.05). This value could prove that teacher training had a statistically significant effect on productivity. Through training, technical knowledge and job skills could be used at the same time. School institutions tended to choose teachers who had attended training in the field of teacher training rather than those who had never attended training. Teachers who often followed training, they were more capable in carrying out teaching tasks. The fact shown that the longer the teacher works, the more training a teacher would take. With training, a person would be able to carry out their duties properly so that work productivity would be better too (Ismail, Rosa, Sulaiman : 2017)

There are various types of training that could support the input of productivity in this study, namely Subject Teacher Training (MGMP) training, Curriculum 13 and Learning Media. Because there were so many learning media available, the most supportive training was able to improve the knowledge and skills of teachers in creating and implementing learning media in detail and mandala. When the knowledge and skills of teachers in making learning media, variations in learning activities and students were easier to accept learning because of the variation in the learning process that teachers used more and the output produced by students over learning outcomes would be better. When many training activities are followed, the skills of teachers in making learning media improved student learning outcomes and teacher productivity.

The increase in the amount of training by a teacher was related to a person's tenure, the longer a teacher worked, the more teacher training would attend. We could compare it to new teachers. If a teacher had frequently attended training in a particular field, it would increase their teaching abilities and skills. Unconsciously they would learn so they had practical skills at work. With job training in the field of teacher training that each teacher had, each school institution hoped that achieving goals would be easier, as stated by Surahman (2018).

These results were in line with the teacher-specific research conducted by Haris (2018) based on the results of the study, it shown only two forms of teacher training that we studied affect productivity. First, content-focused teacher professional development is positively related to productivity in secondary and high school on mathematics lesson. Second, more experienced teachers appeared to be more effective at teaching basic and reading and secondary school on mathematics lesson. Furthermore, research conducted by Amron (2017) The period of a person's work was related to training, the longer a person worked in a field the more training the teacher participates in. If a teacher had frequently attended training in a particular field, it would increase their teaching abilities and skills. Training was also a skill or skill possessed by a workforce to do a job and could only be obtained through practice, both training and experience.

This result was also in line with research in general for workers who had training to support other workforce productivity as stated by Syverson, (2017) that schools were in an effort to increase work productivity, companies paid attention to teacher job training, with companies providing and conducting programs or tips. Special tips for providing input and direction as a useful reference for increasing work productivity in the company as a process of developing the company going forward.

5. Conclusions

The study analyzes the empirical evidence related to the education function production model based on human capital input, namely education, skills and wages on the productivity for vocational teachers. The results shown the wages and skills responded positively and significantly to productivity. These results also proved that there were significant differences in productivity based on education level. Meanwhile, empirically the determinant input in this model was skill, therefore skill development was needed through wider opportunities for teachers to participate in various kinds of training activities to support teacher productivity in teaching. Teachers were required to play an active role in finding information on various trainings for improve their ability to prepare media and transfer knowledge to students so that the output (learning outcomes) obtained by students was higher

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Analysis of Credit Growth Determinants in the European Countries

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Abstract

The main function of banks is to facilitate the better functioning of lending activity, helping to improve efficiency and rational distribution of resources between different entities. If credit is used to purchase productive resources, this will help economic growth. The overall development of credits is usually based on a combination of factors that simultaneously impact the demand and supply of bank credit. Using a qualitative and quantitative analysis, the main objective of this paper is to establish the analysis of the evolution and determinants of credit activities, especially of the factors that have an impact on credit growth. Also, this paper will analyze the effects that the current pandemic has brought to the European banking sector in general and in particular to the credit activity. The results showed that economic growth, credit quality, financial intermediation rate, along with foreign and domestic funding sources are the main determinants of credit growth.

Key words: credit activity**,** credit determinants, credit growth, European banking sectors.
J.E.L. classification: G21

1. Introduction

The banking system plays an important role in the modern world economy, providing financial assistance to the government and private sectors. The main function of banks is to facilitate the better functioning of lending activity, helping to improve efficiency and rational distribution of resources between different entities. Credit expansion allows consumers to borrow and spend more, and businesses to borrow and invest more. The banking system is the one that prevents the information asymmetry between creditors and borrowers, reduces transaction costs, monitors managers and provides financial resources in an inherently uncertain economic environment.

More than a decade after the global financial crisis of 2008, economic activity and bank lending in Europe have not yet fully recovered, despite the recent developments. The current pandemic has also negatively affected the economy and in particular credit activity, making them go backwards, almost to the levels of the financial crisis. The COVID-19 pandemic brought a sudden negative revision of expectations, indicating the contracting of demand conditions and the poor quality of credit applications.

Using a qualitative and quantitative analysis, the main objective of this paper is to establish the analysis of the evolution and determinants of credit activities, especially of the factors that have an impact on credit growth, making a comparison between Western European countries and Central and Eastern European ones. Lending to the economy is a key function of banks, as well as the main channel through which they influence the activity of the economy.

2. Literature review

In recent years, following the financial crisis of 2008, most credit activity studies have been focused on its evolution, with a particular focus on the key determinants of credit growth. Credit developments are even more essential in the case of developing economies, due to the rapid growth cycle that some of them endured before the crisis and the immediate shrinkage that followed. Much

of the research work on lending has focused on determining the level of credit balance and identifying deviations from this balance, empirically assessing the impact of fundamental factors on credit dynamics in emerging countries, in order to understand changes in the importance of credit growth. Studies in this area were dominant before the 2008 crisis, when many developing countries were experiencing rapid credit growth.

Filip's work (2016) focuses on the comparative analysis of the profitability of banking systems and, in particular, their determinants in two major groups of European countries, namely Western Europe and Central and Eastern Europe, given that they have social conditions and significant economic differences that may influence banking. Starting from the scientific literature, the author identified bank-specific, industry-specific and macroeconomic factors of bank profitability, but also considered the manifestation of the economic and financial crisis as an important additional determinant, while bank profitability was determined by ROA and ROE indicators. Using econometric methods for data processing for these groups, each of the 12 countries for the period 2000-2011, concluded that for both groups, economic growth improves the profitability of banking systems, while credit risk and the crisis significantly affect it.

The determinants of bank profitability for Western European countries in the crisis period 2007-2011 were also identified by Messai et.al. (2015). The sample included 322 banks which they subdivided into two sub-sample countries, the countries affected by the crisis (Greece, Italy, Portugal, Spain and Ireland) and the other Western European countries. They opted for several bank-specific determinants, as well as for macroeconomic factors. The results show that the bank's profitability depends on the representations envisaged and the situation in the country. Also, Hempell and Sorensen (2010) examined the impact of supply constraints on euro area bank lending, with a special focus on the crisis period.

Regarding the study of credit activity in Central and South-Eastern Europe, one of the first studies in this field is that of Cottarelli, DellÁriccia and Vladkova-Hollar (2005), who analyzed 15 CEE countries and found that credit developments up to 2002 were in line with key economic factors. Their results suggested that credit to the private sector was driven by the deepening of the financial system, privatizations and the process of global transition of these countries to a market economy.

Boissay, Calvo-Gonzales and Kozluk (2006) assessed the deviations of the credit-to-GDP ratio from equilibrium for 11 CEE countries. Their results suggested that the increase in this ratio is consistent with the performance of macroeconomic factors only in Slovenia and Romania. They also found that credit growth was above the optimum level in countries with fixed exchange rates. On the other hand, using a similar framework, Kiss, Nagy and Vonnák (2006) found no evidence of excessive credit growth in any of the CEE countries, with the exception of Latvia and Estonia.

An IMF study by Aisen and Franken (2010) examines the evolution of credits to more than 80 countries, focusing on the 2008 crisis, concluding that the countries with faster credit growth before the financial crisis, higher levels of intermediation and a higher economic slowdown led to lower post-crisis lending rates. They also note that the countercyclical policies pursued by some of these countries have helped to maintain high lending rates in their economies. The main objective of Zdzienicka's (2011) work was to shed light on the development of private credit in a group of 11 CEE countries, examining whether credit growth before the 2008 financial crisis could be considered "excessive" compared to the level of balance and whether its recent slowdown could be considered a "credit crunch". The results suggest that most of the countries in the sample experienced episodes of excessive lending between 2002 and 2008.

One of the most comprehensive post-crisis studies is that of Guo and Sepanyan (2011), which analyzes the determinants of credit growth in 38 developing countries for the period 2001-2010. The analysis is split into two periods, before the crisis and after the crisis, to identify changes in credit incentives during these two periods. Their results are in line with theoretical expectations.

Recent studies use data on individual banks, in addition to macroeconomic ones. An IMF technical paper (2013), which studies bank-level data on CEE countries, notes that the sharp slowdown in credit since 2008 has resulted in weakening macroeconomic conditions, deteriorating bank indicators and increasing their sensitivity to this deterioration. In another IMF study, Everaert et. al (2015) examines the data of individual banks for 5 CEE countries and finds that supply factors gained importance over demand factors in explaining credit growth after the 2008 crisis.

Note and Suljoti's article (2017) aims to empirically assess the factors that influenced the lending activity of banks in 10 EDC countries before and after the financial crisis. Holzner et. al. (2019) studied lending in five Central and South-Eastern European countries, namely Croatia, Slovenia, Bosnia and Herzegovina, Serbia and Montenegro.

In one of my papers (2019) studying the credit activity in Albania (2019), I found out that developments in the global economy, and in particular the global economic crisis, have had a negative impact on the Albanian banking sector and caused the credit market to shrink.

3. Research methodology

Core banking activities to increase deposits and credits to customers are crucial for European banks. Credit, in particular, is the most important part of the economy. If credit is used to purchase productive resources, this will help economic growth. Using a qualitative and quantitative analysis, the main objective of this paper is to establish the analysis of the evolution and determinants of credit activities, especially of the factors that have an impact on credit growth.

The Figure no.1 shows the evolution of credit growth in the Eurozone, from the early 2000s, shortly after the establishment of the European Central Bank, to the present. Until the outbreak of the global financial crisis (2004-2007), we can see a significant increase in credit in the Eurozone, reaching a value of 10% at the end of 2006. Since 2007, the problems of banks began, some of them they faced large liquidity losses, or even bankruptcy. Many banks have gone bankrupt due to excessive indebtedness and lack of liquidity. Banks have begun to accumulate significant losses in their balance sheets due to the assessment as losses of a growing number of subprime loans granted by banks by obtaining liquidity in the money markets in the short term. Under these conditions, the forecasts regarding the incomes, profits and bankruptcies in the economy worsened as such and the situation of the banks' balance sheets, which needed more and more funds for recapitalization. All countries have experienced a decline in public confidence as well as a decline in lending.

Figure no. 1. Euro Area Credit Growth

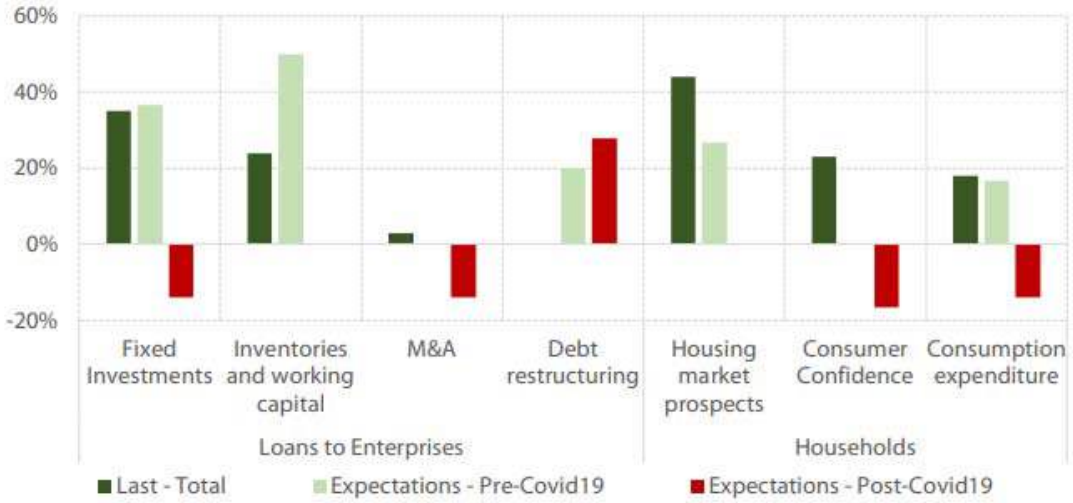


Source: https://tradingeconomics.com/euro-area/loan-growth

The disappearance of cheap credit, so the increase of its cost, led to a sudden decrease in the level of credits, reaching a negative value below 0% by the end of 2014. Subsequently, from the end of 2014 until now, credit growth has returned to positive values, registering a level of 4% until the beginning of 2020. After the pandemic breakout in March 2020 it's seen a decrease in credit growth, expected to continue with this trend in the successive years. Loan growth in Euro Area is expected to be 2.4% by december, according to Trading Economics global macro models and analysts expectations and it's estimateed to stand at 0.9% in 12 months time. In the long-term, the Euro Area credit growth is projected to trend around 0.7% in 2021 and 1.5% in 2022.

Demand for investment loans is expected to decline and demand for working capital is not expected to increase, but will not contract significantly. On the other hand, the demand for debt restructuring is expected to increase for the first time in the last six years. Consumer and household expectations have been significantly reversed. In particular, consumer confidence and consumer spending should contribute negatively to the demand for loans. In Figure no.2 are represented the actual factors affecting the demand for credits, and the expectations pre and after covid.

Figure no. 2. Factor affecting demand for credit



Source: EIB-CESEE Bank lending survey https://www.eib.org/en/publications/cesee-bls-2020-h1

4. Findings

The overall development of credits is usually based on a combination of factors that simultaneously impact the demand and supply of bank credit. Financial turmoil since mid-2007 has had a negative impact on banks' balance sheets, fund costs and profitability, thus negatively affecting their ability to provide new loans. The ability and willingness of banks to provide loans affects bank lending in general and in particular during the financial crisis. Even when the effects of demand are controlled, credit growth is adversely affected by supply constraints. This applies both to loans to households for the purchase of housing and to loans to non-financial corporations. The impact of supply constraints, in particular on disrupting banks 'access to finance for SMEs and their liquidity positions, has also been strengthened since the eruption of the financial crisis and the corresponding adjustments in banks' lending portfolios, mainly oriented at prices, rather than direct quantity restrictions.

In Western European countries, bank profitability is significantly affected by capital adequacy and inflation, but positively influenced by liquidity, while in CEE countries it is strongly affected by unemployment and positively influenced by the mix of activities. Thus, it was considered that Western European banks should in particular take steps to improve capital adequacy and limit credit risk, while in CEE countries banks should focus on reducing credit risk and the government should take action against unemployment.

In terms of supply, the faster growth of foreign debt of banks and deposits promotes the rapid growth of credit. Also, the healthier the banking system, the more loans it grants. In the direction of demand, higher economic growth is reflected in higher demand for credit. Facilitating domestic and / or foreign monetary policies creates the premise for higher credit growth. Findings on CEE countries suggest that the high level of foreign bank lending was the main driver of credit growth in the years before the crisis, followed by economic growth. These two factors were also the most important determining factors in the post-crisis period. Initially, the rapid withdrawal of foreign bank financing led to a rapid slowdown in credit growth and then the economic slowdown explained the lack of lending in these countries. Credit growth has also been further decreased by foreign bank branches as a result of tightening funding conditions by their parent banks.

The results obtained by most studies, showed that economic growth, credit quality, financial intermediation rate, along with foreign and domestic funding sources are the main determinants of credit growth. The reduction in post-crisis lending was largely due to a lack of willingness to take risks and a reduction in banks' external financing, where the latter was to some extent offset by the increased domestic deposits.

Speaking of CEE countries, the region is quite diverse in terms of the performance of the banking sector. The banking sectors in Croatia and Slovenia are growing quite slowly, lagging behind their counterparts in Central Europe and even in many euro area countries, while especially in Bosnia and Herzegovina, Serbia, and Montenegro the banking sectors are much more dynamic. Unsecured retail loans account for the largest share of credits to households in all countries, and their share of total loans significantly exceeds the average level of the euro area. In all countries except Croatia, the accumulation of unsecured retail lending is much faster than rising wages. Combining this trend with very high levels of unsecured retail loans in home loans in these countries means potential risks of overheating and creating bubbles in the markets for these loans. Slovenia is a leader in digital transformation in the region, especially in business digitalisation. To date, Croatia lags significantly behind Slovenia, but performs better than most CEE countries. The other countries in the region have not yet made much progress in digital transformation. In the Albanian banking system, exposure to credit risk is the main risk to which the system is exposed and credits make up the majority of the banking system's assets. In recent years, the quality of the loan portfolio has deteriorated significantly, which can be easily understood from the increase in non-performing loans.

The COVID-19 pandemic brought a sudden negative revision of expectations, indicating the contracting of demand conditions and the poor quality of credit applications. Thus, a first direct effect that commercial banks have already faced is the decline in the value of credits. The emergence of the coronavirus pandemic has led to the identification of a new systemic risk arising from the reduced capacity of credit institutions to contribute to the economic recovery amid a reduced capacity to support financial intermediation. The pandemic has further aggravated real sector balance sheets, increasing credit risk and reducing the banking sector's appetite for lending.

5. Conclusions

Analyzing all the results, I first conclude that for European countries, bank profitability is greatly increased by economic growth and also affected by credit risk and the manifestation of the economic and financial crisis. In addition, profitability appears to be significantly affected in Western European countries by capital adequacy and inflation, but also positively influenced by liquidity. On the other hand, in CEE countries, the profitability of banking systems is mainly affected by the change in the unemployment rate and positively influenced by the mix of activities.

In Western European countries, bank activity is significantly affected by capital adequacy and inflation, but positively influenced by liquidity, while in CEE countries it is strongly affected by unemployment and positively influenced by the mix of activities. Thus, Western European banks should in particular take steps to improve capital adequacy and limit credit risk, while in CEE countries banks should focus on reducing credit risk and the government should take action against unemployment.

The year 2020 is, indeed, the year that turned any predictions upside down and forced us to work in an extremely complicated scenario for both the social sector and the business sector. Compared to 2008, when the crisis started from the financial-banking system, the current crisis generated by the new coronavirus, which produces strong effects both in the financial markets and at social level, puts the banks in a position to react.

Lending to the economy is a key function of banks, as well as the main channel through which they influence the activity of the economy. The immediate cessation of economic activity has caused liquidity problems in some of the businesses and has been accompanied by rising unemployment; consequently, it has affected the ability of bank customers to repay loans.

Concluding, some of the effects of the pandemic are the decrease in the market value of commercial banks, the profitability, the volume of assets and the decrease in the value of government securities portfolios held by commercial banks.

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The Environmental Reporting Practices in Romania

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Abstract

The aim of this paper is to present the merit of voluntary environmental information in the sustainability reports of the Romanian companies on the Global Reporting Initiative (GRI) website (year 2018). The paper is based on a qualitative research on Triple Bottom Line Reporting (TBL) the initial structure of non-financial information. The research method is expected to be based on scoring, thus showing the level of conformity of reports based on literature analysis and the influence of the three types of isomorphism mechanisms This paper reveals the level of conformity of Romanian companies using the sustainability reports in accordance with the conceptual framework of TBL and GRI.

Key words: environmental reporting; sustainability reports; TBL; isomorphism; GRI
J.E.L. classification: M14

1. Introduction

In the last decade, the TBL reporting is gradually gaining importance worldwide, being the result of economic factors based on the company's performance. It is defined as a sustainability balance for three different aspects: environmental, social and economic (Newport et al., 2003). Thus, environmental reporting plays an important role in business costs and in the perception of stakeholders on the business. The focus of this paper is to show if the Romanian entities, are adapted to publish sustainability reports with the TBL framework. On the other hand, the paper is formed as follows: in the second part, we presented the literature and the research methodology. The fourth part reveals the qualitative disclosure of information on the natural environment, followed by a part of findings. The last part presents the conclusions and limitations along with future research directions.

2. Literature review

Globalization has challenged the traditional accounting profession, the reporting model and the business model, arguing that it does not adequately meet the information needs of stakeholders for assessing the past and future performance of a company (Flower, 2015).

TBL is a reporting concept which derives from the Brundtland Report (Sridhar, 2012) and environmental reporting is one of the key parts of TBL reporting. Sustainability reporting represents the loyalty and confidence and for the stakeholders represent an item of quality and efficiency (Schaltegger and Csutora, 2012, Herold et al., 2016).

As a response we intend to use as a theory, the institutional theory which their objective is to increase the profits. The institutional theory involves to adopt practices (Carpenter and Feroz, 2001) and to explain accounting choices and the interaction between practices (Dillard et al., 2004). Unusually, the reporting practices are influenced of the three types of isomorphism mechanisms (DiMaggio and Powell, 1983): coercive, normative and mimetic. The coercive isomorphism is the result of pressures imposed by authority of organisations (DiMaggio and Powell (1983), Jennings and Zandbergen, (1995), Milstein et al. (2002), Delmas and Peng (2002)). Normative isomorphism

represents the pressures exerted by the profession. (DiMaggio and Powell, 1983) and the last isomorphism, the mimetic represents the tendency to imitate best practices.

3. Research methodology

We used an initial sample of 4 companies (see Table no. 1) of Romanian companies listed in GRI Standards and on the websites of these entities.
In our study on used three criteria: the companies make part from large Romanian companies; the companies must publish the sustainability reports for the year 2018 consistent with GRI 4 standards and the environment information of reports must be available for the stakeholders.

Table no. 1. Initial Sample of Romanian companies indexed in the database of the GRI

Companies	Countries	Section	Year	Sustainability report	Scores	Indicators
Adrem	Romania	Energy	2018	X	1	Yes
Distributie Energie Oltenia SA	Romania	Energy	2018	X	1	Yes
KMG International	Romania	Energy	2018	X	1	Yes
Petrom	Romania	Energy	2018	X	1	Yes

Source: Own processing

For to analyse the degree of qualitative conformity of the Romanian companies, we formulated the following hypotheses: ***H1:*** *The companies listed in the GRI respect the TBL framework;* ***H2:*** *Using the TBL reporting framework the companies have performance;* ***H3:*** *The companies present environmental information as a result of action caused by an institutional isomorphism.* The analysed reference year is 2018 with a total of 4 sustainability reports resulted. On the other hand, to show the relevance of sustainability reports, we can use a dichotomous variable and the Guide to Non-Financial Reporting developed by the European Commission (2017) and OMFP 1938/2016, therefore to determine whether information is presented about the environment in which it is presented, we adopt methodology based of scores by Dalvadi and Gandhi (2012).

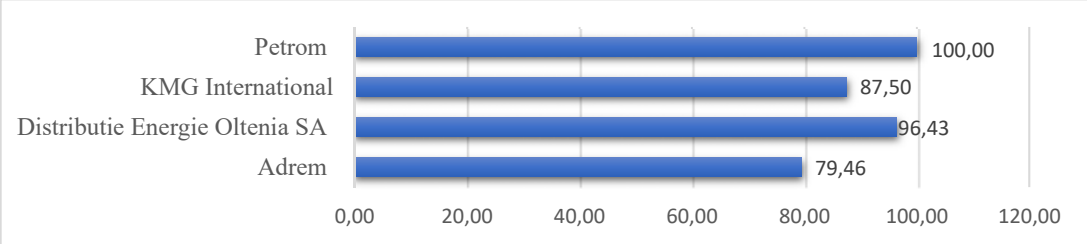
Qualitative analysis of the disclosure of information on the natural environment

To determine the conformity with the requirements of GRI 4 standards, we used the sustainability reports of the sample, on the website of the GRI. The conformity of the sustainability reports of the analysed companies was evaluated by giving scores from 1 to 7 on the quality disclosure of information of the natural environment. In order to make the charts, we calculated the scores in relative values.

Chart no. 1 (see Chart no.1) shows the degree of conformity of the sustainability reports with the natural environment items on the quality of disclosure information (as measured). The highest score required by the TBL framework is 112. The 8 natural environment indicators regarding the quality of disclosure information, we have given scores from 1 to 7 are: **Indexes; Profiles, Performance Management, Policies, External Relations, Occupational Health and Safety, Product Performance and Sustainability.**

In *Chart no. 1*, we can see that the highest relative score was obtained by PETROM with a score of 100%, followed by the companies Oltenia Distribution and we can notice that the lowest percentage was achieved by Adrem. The score of 79,46% by Adrem.

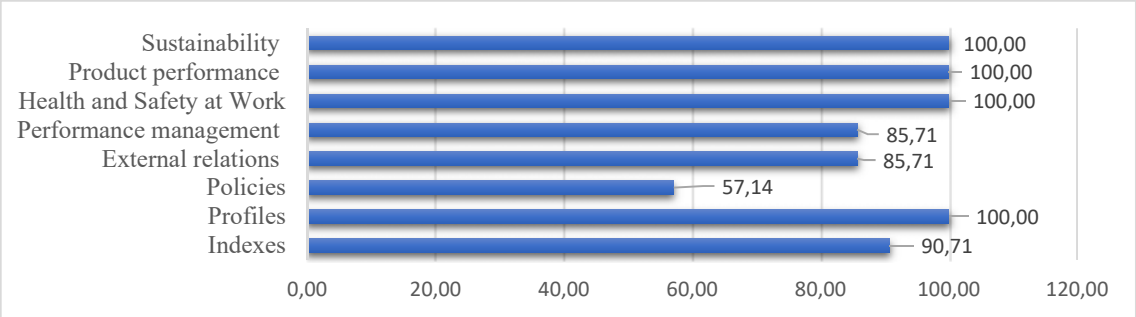
Chart no. 1 The level of conformity of the quality disclosure of information as measured



Source: Own processing

In consequence, the level of conformity (how much is measured) of the quality items of the disclosure information on the natural environment according of GRI 4 standards is demonstrated in Chart no. 2 (see Chart no. 2), in which we calculated the total of items distinctly in relative values.

Chart no. 2 The elements of quality disclosure information on the natural environment like how much is measured



Source: Own processing

4. Findings

Presently, the disclosure of information on reporting, is a tool for the commitment of stakeholders and also is a common practice. The disclosure of information on reporting is mandatory or voluntary to reduce information asymmetries. The companies in the sample are oriented to reduce the asymmetry of the reports. In our study, most Romanian companies had an average score of 100% in both analyses, but in terms of quality, the maximum score of 100% have obtained from PETROM. This fact of conformity of sustainability reports is due to the fact that the company Petrom have experienced since 2011 regarding the disclosure of non-financial information. In Romania it is highlighted that two types of isomorphism were used voluntarily: mimetic, and normative and the coercive isomorphism emerges since 2017, when it is adopted the Directive 2014/95 This shows the commitment to openly communicate to all our stakeholders the actions concerning the natural environment taken in order to better meet their expectations. This high degree of conformity is due to fines and penalties amounting to EUR 0.090 million (2017: EUR 0.076 million). These sanctions were a consequence of environmental incidents, including discharges and exceeding the limit values for the elimination of pollutants in the environment. The low degree of Adrem company in terms of quality of disclosure of information of natural environment is due to the fact it is the first report and indicates that for the Adrem the sustainability report respects the protection norms of environment, complies with the laws and rules of the communities where it operates and also with the GRI G4 supplement, resulting in a coercive, normative and mimetic mechanism.

5. Conclusions

As a result of globalization and the need to comprehend the principles of reporting by stakeholders and the entities. Companies are concerned about increasing sustainability goals and taking into account the notion of TBL derived from the definition of sustainable development in the Brundtland Report (Elkington, 1999). This study reflects the response of stakeholder pressure and the three types of isomorphism mechanism. The latent limitation of the research is the small sample used, resulting only 4 companies and subjectivity of the coding the reports. As future research directions, we proposed to large the sample and include in the analyses other sector.

To conclude, the paper intends to expand the reporting vision of Romanian companies also we showed that the Romanian companies are open to understanding the TBL applying the principles of framework.

6. Acknowledgements

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Forecasting Nigeria Agricultural Growth in the Era of Dwindling Oil Price

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Abstract

The persistent volatility in the price of crude oil has intensified the comparable challenges to generate jobs and foster inclusive growth in oil-exporting countries. The non-oil sector such as agriculture tends to be low and was subsequently the only source of growth and jobs. While a country like Nigeria has the forward and backward linkages of agriculture as the impetus for growth, the impact of dwindling oil prices on agricultural growth remains grossly understudied in extant literature. This study focuses on examining the impact of oil price on agricultural output growth in Nigeria over 1995-2019 through the quantile regression technique. This methodology provides a more robust estimate against outliers in response measurement of the nexus between indices of oil price and agricultural output growth. Our findings indicate that crude oil prices have a negative effect on the performance of the Nigerian agricultural sector and have been consistent with the results of the OLS assessment. The policy implication of this finding implies that agricultural production in Nigeria can be amplified by diversifying the economy; shifting emphasis away from the crude oil export only and focused more on the domestic production of agricultural output to compensate for the loss of revenue emanating from oil wealth. Also, the government as well as the private firms should team up to address the infrastructural deficit by investing in the agricultural sector to optimize the agricultural value chain for growth and development of the nation.

Key words: agricultural output growth, oil revenue, quantile regression, Nigeria
J.E.L. classification: C21, Q14

1. Introduction

The persistent volatility in the price of oil and perhaps the outbreak of COVID-19 has affected Nigeria's finances. The coronavirus epidemic has posed serious challenges to the global economy, causing stock-market and supply chain instability across the globe. Nonetheless, there has been a considerable amount of volatility in the oil industry since the beginning of oil price shocks 2014. While prices currently average at $30/barrel, the uncertainty about its continued survival is still overwhelming as Nigeria's governance problems are further heightened. The decrease in oil prices not only poses a strategic danger to the increasing significance of the country in the global economy but has become the latest impetus behind its domestic predicaments, such as rising unemployment, poverty, and continued insurgency inflow into the country. As the oil price shocks and COVID19 continued to harm the economy globally, various arms of government have begun to explore alternatives for diversifying the economy especially in light of the current economic situation largely caused by the decrease in crude oil revenue. In divergent to general views, Nigeria's economy is not oil-dependent because it is undiversified: oil only contributes about 10% of gross domestic product (GDP), an amount smaller than the contributions of both agriculture and manufacturing. Relatively, oil dictates the path of Nigeria's economy as it offers about 80% of total exports and, subsequently, utmost Nigeria's foreign exchange earnings. Given the foregoing, the government and several stakeholders in oil sectors are equally considering an investment in the non-oil sectors.

Globally, agricultural trade has been a driver for development, especially in developing countries where it is the leading source of wealth and generates employment (PWC, 2019). The persistent decrease in oil price would not only shrink the foreign reserves, perhaps it would make the foreign exchange rate more expensive, and firms will begin to struggle to source the for the factor inputs required for production. Thus, diversifying exports would reduce the country's sensitivity to oil prices and put the economy on a stronger footing. Nigeria's relatively diverse climatic conditions and vast areas of arable land make it possible to develop a wide range of crops as well as various livestock farming which tends to expand the government goal of food self-sufficiency (Ogbechie, 2017). An example of a prospect is the current intervention in rice and wheat production and processing, as the Nigerian government seeks to cut imports that cost the nation $4 billion annually. After all, with an estimated population of 200 million, an abundance of other natural resources including arable land, and a diverse workforce, Nigeria poses the tremendous potential for an untapped or under-tapped agricultural market. Over the years, agriculture contributes to this much-needed diversification. An estimate from Nigeria Statistical Bureau (2018) suggests that Nigeria's agricultural sector provides 23% of the country's GDP and employs approximately 70% of the labour force, which is relatively higher than the 9% contribution from the oil and gas sector. It is imperative to note that compared to the oil and gas sector or solid minerals, agriculture does not inherently require huge start-up investments. The agricultural sector contributed positively and regularly to the aggregate output in Nigeria (Ewetan & Okodua, 2013). Similarly, oil and gas companies are used to take high-risk activities while agriculture poses a lower or manageable risk profile. Consequently, it is evident that agriculture has not realized its full potential, particularly in the face of its growing population. The agricultural sector still can generate over $40 billion in exports (PWC, 2019). But despite this potential, Nigeria exported under $1 billion in agricultural products in 2019, which represents less than 1.4% of the country's total exports. Agriculture's poor performance in both productivity and competitiveness in Nigeria presents a significant structural challenge for the government and its people, who must cope with its ongoing demographic change and compete in an increasingly globalized and highly competitive marketplace for agricultural products.

In recent years, there has been a lengthy empirical investigation on the nexus concerning oil price shocks and various macroeconomic factors ranging from output growth, and to large extent, focus on the disaggregated sector variables. Remarkably, the majority of the studies focus mainly on price relations and volatility spillovers suggests that high oil prices increase the costs of producing agricultural outputs. A recent series of empirical research on the state of the relationship between prices of oil and prices of agricultural commodities using various methodologies indicates that a different indirect relation is formed between prices (Esmaeili & Shokoohi 2011). While using a general equilibrium model with clearly defined macro-economic relations, Gohin and Chantret (2010) reported negative effects of oil prices on agricultural prices. In divergent to the erstwhile empirical investigation that concentrated on the direction of dwindling oil prices and agricultural output prices, the scanty empirical investigation has been recorded concerning the direction of oil prices and agricultural growth. Few of these studies (see Akpan, 2009; Binuomote & Odeniyi, 2013; Ikram & Waqas, 2014, amongst others) affirmed that the crude oil prices exert a negative and significant impact on agricultural output. Thus, given the foregoing, the nexus concerning oil price fluctuations and agricultural output growth seems to be diverse. Beginning with methodology standpoint, numerous explanations may be expounded for differences ranging from sample adopted, call for alternative sources of energy, and the estimation techniques. Further, the paper contends that these empirical conclusions may be biased presumptuous that the distributional heterogeneity of agricultural output growth returns is disregarded. Economic theory suggests that oil price shifts directly impact agricultural prices through cost-push effects by increasing the cost of production and transportation costs (Nazlioglu & Soytas, 2012). The other impact is expressed by agriculture commodity prices in the form of consumer prices. The increase or decrease in oil price is transferred by the firms that used agricultural output as input in production to consumers.

To the best of our knowledge, no empirical literature ought to have established the nexus between oil price fluctuations and agricultural output growth behaviour exploring the quantile regression model framework in Nigeria and possibly in Africa. **T**he paper contributes knowledge in three ways. In divergent to all studies that predominantly focused on oil price-output growth, the

study examines whether the persistent changes in oil prices would impact the agricultural output growth noting the underlying problem of how the effects of fluctuations in oil prices vary across economic sectors and how they may have changed is of particular importance. Secondly, in divergent to the existing studies, this paper adds to the literature by examining the effects of oil price fluctuations on agricultural output growth for a net oil-exporting country, Nigeria. The paper explores a quantile regression (QR) model to examine the effects of oil price changes on both the mean and the conditional distribution of agricultural output growth returns. By and large, the paper aims at investigating how agricultural output growth response to the price of oil shifts. The reason for employing quantile regression on the equation of oil price changes relies on the fact that QR possesses the capability to explain whole conditional dispersal of agricultural output growth returns. Therefore, the paper conceivably will gauge how oil price changes influence agricultural output growth allowing to their location on the conditional dispersal of agricultural output growth returns. While the threat to agriculture currently exists in Nigeria, the government has pledged to revive the economy through agriculture, amidst dwindling oil revenues and subsequently spillover effects. There are plenty of opportunities to be created in Nigeria if governments focus on maintaining agricultural growth and captivating the deviations in inventories. Indeed, oil-exporting countries such as Nigeria have the forward and backward linkages of agriculture as the stimulus for development, and the effect of dwindling oil prices on agricultural growth remains poorly understood in the current literature. Hence, this study focuses on examining the impact of oil prices on agricultural growth in Nigeria. Section two reviews the literature on oil price-agricultural sector analysis. Section three resolves around the methodology. Section four focuses on empirical analysis while section five concludes, summarizes, and offers policy recommendations.

2. Literature review

Literature is abounding concerning the nexus between agriculture and output growth. It appears largely in the literature that there are three empirical standpoints. The first category focused predominantly on the role of the agriculture sector to the output growth (Aminu & Anono, 2012; Tolutope & Chununso, 2013; Bakare, 2013; Abogan, Akinola, & Baruwa, 2014; amongst others. These studies suggested a linkage concerning the agriculture input al sector and economic growth. For instance, Oje-Okoro (2011) resolved through multiple regression analyses that there is a positive relationship between economic growth and the agricultural sector. The author also emphasized that domestic savings, as well as expenditure incurred by the government on agriculture, contributed eighty-one percent (81%) to the economic growth (GDP) result. Also, the findings of the empirical examination by Bakare (2013) revealed that past agricultural production values may be explored to predict the impending actions of Nigeria's rural growth**.** The investigation was followed by an analysis of the effects of non-oil exports on Nigeria's economic development from 1980 to 2010, by Abogan, Akinola, & Baruwa (2014). The authors used the co-integration methodology and reported that non-oil exports had a moderate economic growth effect as unit growth in non-oil exports increased their productive potential by 26%. Syed, Muhamma, and Rana (2015) focused on another recently published study on the macroeconomic effects of Pakistan's agricultural exports from 1972 to 2008. The authors found that agricultural exports had a negative relationship with economic growth, while non-agricultural exports had a positive relationship with economic growth.

However, it is evident that empirical investigation has shifted focus to the nexus between the global oil market and relevant industries, and contended that volatilities in oil price noticeably have diverse impacts on diverse industries. Manufacturing firms responded to volatilities in oil prices owing to the transmission through which oil price shocks impacted the industry. Besides, some studies contended that there exists nexus between the oil price and agricultural output prices (see Farzanegan & Markwardt, 2009; Fowowe, 2016). Oil price shocks have divergent impacts on agricultural output prices at diverse times. Oil price shocks contributed to insignificant changes in agricultural commodity prices before the food crisis from 2006 to 2008. Oil price fluctuations impact agricultural commodity prices by increasing the costs of production and transportation costs. Nevertheless, there exist divergent views on the nexus between which oil price shocks and agricultural commodity prices.

For example, Zhang and Qu (2015) explored the impact of oil price volatility on Chinese agricultural products. The findings have been described by the cluttering and jumping behavior of oil prices. Results showed that oil price shocks had a significant impact on agricultural commodities in various ways, and asymmetrical. Consequently, Ikram and Waqas (2014) investigated the impacts of oil price instabilities on agriculture output development in Pakistan. The authors relied on the time series data from 1980 to 2003 and explored co-integration and error-correction techniques to examine the nexus. The findings of the study revealed that oil prices and excess intake of fertilizer hurt agricultural output growth in Pakistan. Also, the effects of oil prices on agricultural production in Nigeria from 1981 to 2010 were analyzed by Binuomote and Odeniyi (2013) using the same methods. The findings revealed that oil prices negatively linked to agricultural productivity in Nigeria. The results further stated that a 10 percent increase in oil prices will result in a 0.4 and 0.34 percent decrease in agricultural productivity in the short- and long-run respectively. The authors affirmed that crude oil prices exert a negative and significant impact on agricultural output in Nigeria.

Thus, despite the vast literature on the subject to date, the theoretical models on the channel of transmission of oil price-macroeconomy have been assessed using different methodologies. Authors have applied the vector autoregressive (VAR) technique, Granger causality, Bayesian analysis, Toda–Yamamoto causality model, impulse response function analysis, cross-correlation analysis, the vector error correction model, etc. (Farzanegan & Markwardt, 2009; Gohin & Chantret, 2010; Nazlioglu & Soytas, 2011; Nazlioglu & Soytas, 2012; Liu, 2014; amongst others). Also, both single country and panel studies exist with each study considering the macroeconomic effects of oil price variations using different macroeconomic factors, largely due to the availability of data on selected variables. Meanwhile, there is also a reasonable volume of literature on modeling oil price volatility. Some of the recent studies on the subject cover some areas and issues, and some studies showed that the time series of crude oil prices were described by volatility clustering and asymmetry (Morana, 2001; Chan & Maheu, 2002; Hamilton, 2003; Cunado & Perez De Gracia, 2014; Zhang & Chen, 2015; amongst others). However, given the lengthy body of literature that focuses on nexus between oil prices and economic output, only a few efforts have been made with regards to specific commodities like agriculture, manufacturing, etc. Similarly, to the best of our knowledge, no study in this regard has explored a quantile regression (QR) model to examine the effects of oil price changes on both the mean and the conditional distribution of agricultural growth returns.

3. Research methodology

This paper explored the quantile regression model piloted by Koenker and Bassett (1978) to forecast the impact of indices of oil price on agricultural growth in Nigeria between 1995 through 2019. Quantile regression is an approach focused on estimating conditional quantile functions. This technique overcomes the problems with variance heterogeneity in ordinary linear regressions on the various conditional quantile of the outcome variable scope (Koenker & Bassett, 1978). Given that changes in oil price impact agricultural output in the form:

$$q_r(AGW_t|\Delta OP_t) = \alpha(\tau) + \beta(\tau)\Delta OP_t + \varepsilon_t(\tau) \quad (1)$$

Where AGW_t and ΔRV_t are defined as agricultural growth and oil price, respectively, at time t, and $\varepsilon_t$is the residual. The resulting equation (1) shows that the quantile regression methodology helps us to assess the link between agricultural output and the price of oil, rather than to capture the average relationship, as in the OLS regression at different levels of distribution of agricultural growth. However, erstwhile studies on oil price-economic output nexus predominantly examine two diverse characteristics namely oil price shocks and oil price volatility. These two methodologies diverge in the modus in which they integrate oil prices into their models. Some of the existing studies explored exchange rates in transforming oil prices into domestic oil prices, hence; the paper followed Huiming, Hui, Cheng and Yan (2016) to gauge crude oil price changes as follows:

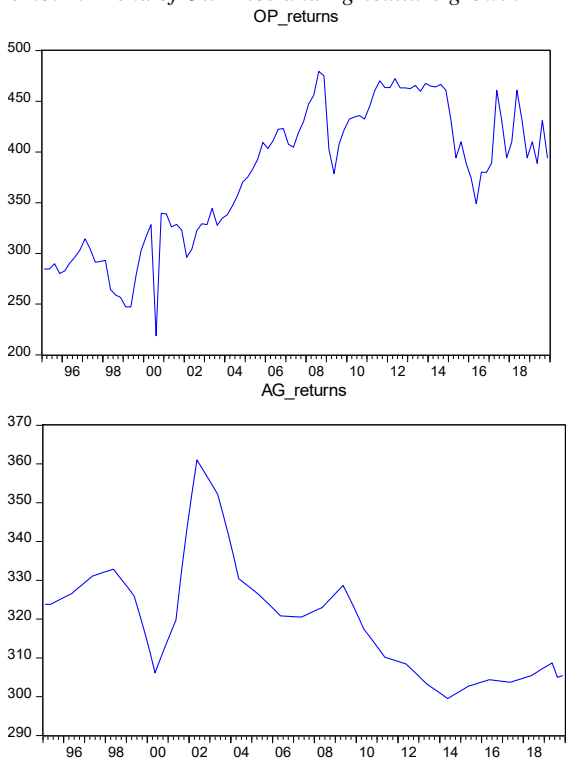
$$OPr = 100 * (lnP_t - lnP_{t-1}) \quad (2)$$

where P_t signifies the oil price at time t . The agricultural growths are well-defined in a related way. Thus, equation (2) is then incorporated into equation (1) to become

$$q_r(AGW_t|\Delta OPr_t) = \alpha(\tau) + \beta(\tau)\Delta OPr_t + \varepsilon_t(\tau) \quad (3)$$

Nigeria's oil prices are sourced from OPEC Statistical Bulletins. Agricultural growth index is sourced from World Bank Development Indicator. Graphical depictions of the selected data are presented in Figure 1. These figures provide that crude oil prices have been highly volatile over the years. Perhaps, the contributing factor that leads to persistent volatility in oil prices is linked to comparative fluctuations in oil supply relative to demand. Besides, the change from crude oil to greener and more efficient sources also contribute to the volatilities in the oil prices. Figure 1 also demonstrates the government neglect of the agriculture sector.

Figure no. 1: Trend of Oil Price and Agriculture growth



Source: Author's computation

The econometric analysis involves two basic steps. These include pre-estimation which focuses on the examination of the structural breaks in the nexus between agricultural growth and oil price volatility. The second phase deals with estimation and post- estimation. The regression model is measured as:

$$AGW_t = \alpha + \rho_t\beta(\tau)\Delta OPr_t + \varepsilon_t(\tau) \quad (4)$$

where AGW_t and ΔOPr_t depict agricultural growth and oil price returns, respectively, at time t; ρ_t is a dummy variable, and τ represents the likely break date. Nevertheless, for each possible break date, structural breaks are confirmed one after the other using the sequential technique suggested by Bai and Perron (1998). The procedure requires an assessment of a full sample of structural breaks. Upon identification of the structural break, the sample is divided at the expected break date; structural break tests are then estimated separately for each sub-sample. Then, equation (4) is incorporated into equation (3) to become a quantile regression model with structural breaks:

$$q_r(AGW_t|\Delta OPr_t) = \alpha(\tau) + \beta_1(\tau)d_1\Delta OPr_t + \beta_2(\tau)d_2\Delta OPr_t + \beta_3(\tau)d_3\Delta OPr_t + \varepsilon_t(\tau) \quad (5)$$

4. Empirical results and discussion

This paper focuses on the examination of the effect of distributional variations in oil prices on agricultural growth in Nigeria. Descriptive statistics are presented in Table 1. Table 1 shows the average value of 319.6 and 377.8 for agricultural growth and oil price returns respectively for the period of review. The paper relied much on the statistics from Skewness, Kurtosis, and the unit root tests. The results demonstrate that the oil price returns are negatively skewed while agricultural growth returns are positively skewed. All indicators have mild kurtosis, indicating that all distributions are non-normal and asymmetric, consistent with the characteristics of frequent shifts in the markets for oil and agricultural outputs. This observation satisfactorily ascertains the need for examining the impacts of dwindling oil prices on agricultural output growth returns at diverse quantiles. Thus, we employ the quantile regression methodology to examine the dependence between the oil price and Nigeria's agricultural growth in equation (5), a method which can explain the magnitude of reliance more flexibly. Besides, Table 1 further presents the summary of the results of the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) Unit roots test. The results reveal that all variables explored in the paper were stationary at a 1% level of significance respectively.

Table no. 1: Descriptive Statistics and Stationary Tests

	AG_RETURNS	**OP_RETURNS**
Mean	319.6605	377.8694
Median	320.7120	391.0372
Maximum	360.9974	479.5543
Minimum	299.5245	218.8296
Std. Dev.	14.53049	68.55724
Skewness	0.767646	-0.301675
Kurtosis	3.287634	1.915034
ADF	-3.115 (0.002)*	-12.18 (0.000)*
PP	-3.826 (0.004)*	-13.75 (0.001)*

Note: * significant at 1%
Source: Author's Computation using E-Views 10

Using the OLS technique and the quantile regression model with structural breaks, the empirical results of changes in oil prices are presented in this sub-section for the impact on agricultural growth throughout each quantile of the distribution of agricultural growth. The Multiple structural breaks technique piloted by Bai and Perron (2003) were used. The result reveals remarkable heterogeneity in the selected variable. The result demonstrates that the structural break occurred at the following dates: 2010Q4; 2005Q4 and 2001Q3. The three breaks established in Nigeria may be related to the U.S. housing economic collapse that prompted the worldwide financial meltdown of 2007, resulted in banking consolidation, and to a persistent fluctuation in crude oil prices in 2003. Table 2 offers the results of the ordinary least square (OLS) and quantile regression estimation. The OLS estimation results for the nexus between changes in oil prices and agricultural growth in Nigeria reveals that the coefficient of oil prices is significant and negative at the 5 percent level of significance. This indicates an inverse nexus between oil prices and agricultural growth in Nigeria, suggesting that a percent change in oil prices will decrease agricultural growth by 12.5%. The results of the diagnostic tests show that the adjusted R-squared is 0.750, suggesting that about 75 percent of the total variation in Nigeria's agricultural growth is explained by changes in oil prices between 1995 and 2019. The F-statistic clarifies the instantaneous significance of all parameters and the result demonstrates that oil prices have simultaneous significant impacts on agricultural growth level in Nigeria between 1995 and 2019 at a 1% critical level.

Table no. 2: Estimation results for the quantile regression and OLS regression

Parameter/ Quantile	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	OLS
α	320.3*	353.2*	353.8*	359.5*	362.5*	363.3*	363.5*	364.7*	370.2*	359.7*
OPr_t	-0.04	-0.12*	-0.12*	-0.13*	-0.13*	-0.13*	-0.13*	-0.12*	-0.13*	-0.13*
d_1	0.04**	0.05**	0.04**	0.06**	0.02	0.02	0.03***	0.03**	0.04**	0.04*
d_2	0.018	0.01	0.01	0.003	0.05***	0.06**	0.065*	0.06*	0.06	0.03**
d_3	-0.01	-0.01	-0.01	-0.02	0.02	0.02	0.01	0.00	-0.00	-0.01

Note: *, **, *** denote statistical significance at the 1%, 5%, 10% levels, respectively.
Source: Author's Computation using E-Views 10

Table 2 painstakingly explains the impacts of distributional changes in oil prices on agricultural growth returns. The quantile regression results show that oil price coefficients are negative and significant across all quantiles, a finding consistent with the results through OLS estimation. It was noticed that the values of the parameter estimates at the 0.4 quantiles are close to those of the OLS. This outcome of this paper is no doubt of the economic framework in Nigeria. Remarkably, our finding is in tandem with studies such as Binuomote & Odeniyi (2013), Ikram & Waqas (2014), affirmed that the crude oil prices exert a negative and significant impact on agricultural output. The coefficients in sub-period 1 (d_1) are low and significant in almost all quantiles but are insignificant in the 50th and 60th quantiles. The estimates for sub-period 2 (d_2) remain low and insignificant from the 10th to 40th quantiles. The results reveal further that sub-period 2 yields a significant and low impact which is not that different from findings in sub-period 1. Relatively, the findings suggest that all estimate coefficients are low and insignificant across all quantiles. However, it is interesting to note that the estimate is also small and significant for all parameters, except for sub-periods 2 and 3.

Table no. 3: Estimation results for the Quantile Slope Equality and Symmetric Quantiles Tests

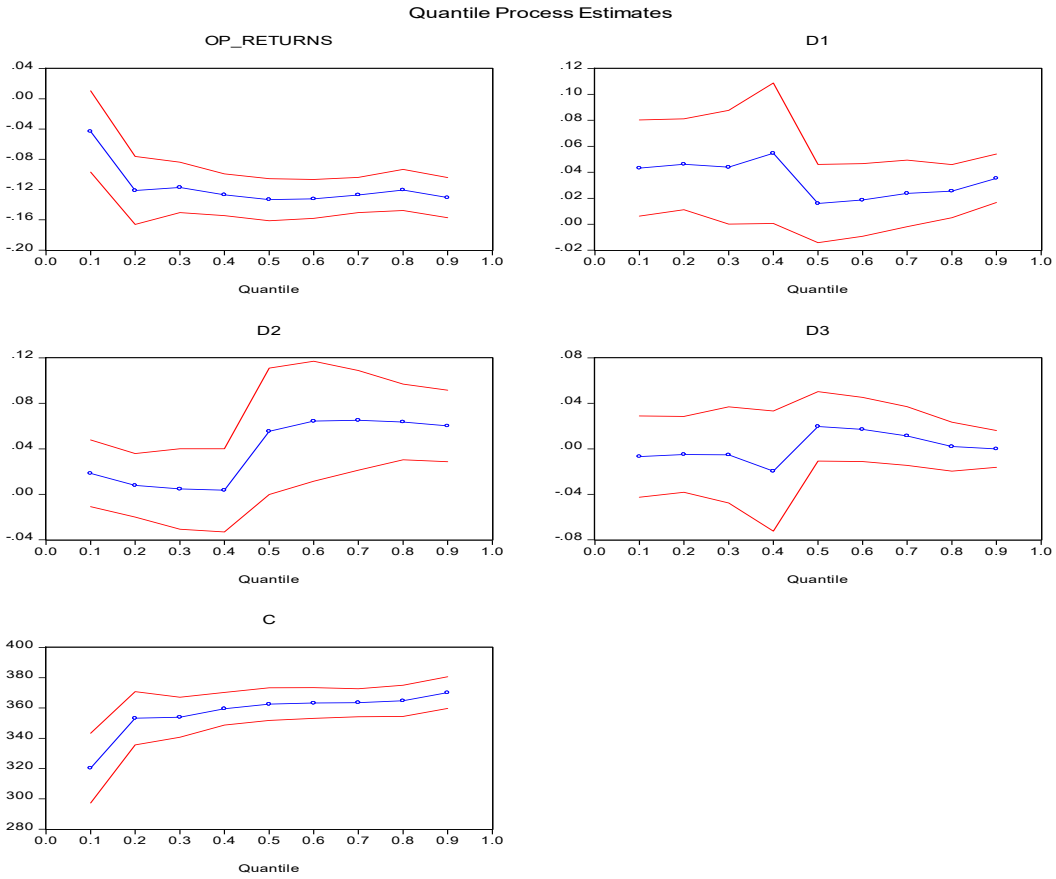
	Quantile Slope Equality		Symmetric Quantiles	
	Chi-Sq. Statistic	Prob.	Chi-Sq. Statistic	Prob.
Wald Test	65.29832	0.0005	24.18816	0.2343

Quantiles	Variable	Restr. Value	Prob.
0.1, 0.9	OP_RETURNS	0.092601	0.0053
	D1	0.046832	0.1190
	D2	-0.032080	0.5432
	D3	-0.046361	0.1214
	C	-34.54302	0.0103
0.2, 0.8	OP_RETURNS	0.024727	0.3326
	D1	0.039792	0.1160
	D2	-0.039274	0.4130
	D3	-0.042392	0.0951
	C	-7.062633	0.4757
0.3, 0.7	OP_RETURNS	0.022263	0.2332
	D1	0.035763	0.1089

	D2	-0.040901	0.3237
	D3	-0.033394	0.1344
	C	-7.646271	0.2926
0.4, 0.6	OP_RETURNS	0.007235	0.5710
	D1	0.041492	0.0596
	D2	-0.042797	0.1885
	D3	-0.041961	0.0556
	C	-2.193115	0.6577

Source: Author's Computation using E-Views 10

Table 3presented the results of the slope and symmetric quantiles. The Wald test result of the slope equality test is 65.29832 which is statistically significant at a 1% level of significance, suggesting that slope equality is a difference across quantile levels. Hence, the inter-quantile range could not reject the null hypothesis of equality at 5%, indicating that slope equality does not differ. Also, Baur (2013) indicates that quantile regression can have asymmetric and time-varying dependencies. Given this assertion, the Wald statistics of the symmetric quantiles test are 24.18 which are not statistically significant at a p-value of 0.234. This suggests evidence of symmetry. However, the result of the oil price returns coefficient restriction test values reveal evidence of asymmetry at the quantile level 0.1 and 009s. This finding means that, in different economic situations, governments and businesses will take different measures to deal with different changes in oil prices. Figure 1 shows the estimated quantile conditions of agricultural returns for growth and fluctuations in oil prices with structural breaks in the quantile regression model. Significantly, in each case, part of the quantile regression estimates decline below the normal regression confidence interval.



5. Conclusions and policy implication

Despite the boom in the oil sector in recent years, the robust fluctuations in oil prices have continued to exacerbate comparable challenges in creating jobs and fostering inclusive growth in oil-exporting countries. While countries like Nigeria have the forward-l and backward linkages of agriculture as a driving force for growth, the impact of oil prices on agricultural growth remains grossly understudied in the existing literature.

This study was designed to examine the impact of the price of oil on agricultural growth in Nigeria between 1995 and 2019. This paper leans on quantile regression methodology to explore the effect of oil price changes on Nigeria's agricultural growth.

Our quantile regression results show that oil price coefficients are negative and significant across all quantiles, a finding consistent with the results through OLS estimation. Remarkably, our finding is in tandem with studies such as Binuomote & Odeniyi (2013), Ikram & Waqas (2014), affirmed that the crude oil prices exert a negative and significant impact on agricultural output. The coefficients in sub-period 1 (d_1) are low and significant in almost all quantiles but are insignificant in the 50th and 60th quantiles. The estimates for sub-period 2 (d_2) remain low and insignificant from the 10th to 40th quantiles.

The results reveal further that sub-period 2 yields a significant and low impact which is not that different from findings in sub-period 1. The presence of low impacts in varying periods is linked to the adoption of different monetary strategies to enhance agricultural output and to the reinforcement of exports from a variety of activities that have an impact on economic systems, resulting in their complexity changing over different periods.

The paper concludes that oil price has a negative and significant impact on agricultural growth in Nigeria.

The policy implication of this finding implies that agricultural production in Nigeria can be amplified by diversifying the economy and change the emphasis away from the crude oil export only and focused more on the domestic production of agricultural output to compensate for the loss of revenue emanating from oil wealth. Also, the government as well as the private firms should team up to address the infrastructural deficit by investing in the agricultural sector to optimize the agricultural value chain for growth and development of the nation.

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Romania's Relationship with the International Monetary Fund and the World Bank

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Abstract

The main mission of the International Monetary Fund is to ensure the stability of the international monetary system, the exchange rate and international payments system that allows countries and citizens to trade with each other. The IMF performs 3 main functions: supervision, technical assistance and lending.

We chose this topic because we believe that Romania has a lot to gain from this collaboration with the IMF and the World Bank. For a more innovative and prosperous standard of living, we appreciate that Romania must strengthen compliance with European norms, be more imposing in achieving the objectives that European partners propose for sustainable development.

Key words: IMF, World Bank, stability of the monetary system
J.E.L. classification: E5, E50, E52, E59

1. Introduction

Founded at the Bretton Woods conference in 1944, the two institutions have complementary missions. The World Bank Group works with developing countries to reduce poverty and increase shared prosperity, while the International Monetary Fund serves to stabilize the international monetary system and The World Bank Group provides financing, policy advice and technical assistance to governments and also focuses on strengthening the private sector in developing countries. The IMF keeps track of the global economy and in member countries. loans to countries with balance of payments difficulties and provides practical assistance to members.Also, countries must join the IMF to be eligible to join the World Bank Group. Currently, both institutions have 189 member countries.

The World Bank Group is one of the largest sources of funding and knowledge in the world for developing countries. Its five institutions are committed to reducing poverty, increasing common prosperity and promoting sustainable development.

Together, the International Bank for Reconstruction and Development - IBRD and the International Development Association - IDA form the World Bank, which provides financing, policy advice and technical assistance to governments in developing countries. IDA focuses on the poorest countries in the world, while IBRD helps middle-income and poorer credit countries.

The International Finance Corporation - IFC, the Multilateral Investment Guarantee Agency - MIGA and the International Center for the Settlement of Investment Disputes - ICSID focus on strengthening the private sector in developing countries. Through these institutions, the World Bank Group provides financing, technical assistance, political risk insurance and dispute resolution to private enterprises, including financial institutions.

The International Monetary Fund - IMF works to encourage global monetary cooperation, ensure financial stability, facilitate international trade, promote high employment and sustainable growth and reduce poverty around the world.

The main purpose of the IMF is to ensure the stability of the international monetary system - the system of international exchange rates and payments that allows countries and their citizens to trade with each other. It does this by tracking the global economy and the economies of member countries, lending to countries with balance of payments difficulties and providing practical assistance to members.

2. Literature review

The main mission of the International Monetary Fund is to ensure the stability of the international monetary system, the exchange rate and international payments system that allows countries and citizens to trade with each other (Ilie D., 2012).

In order to maintain uniform stability and prevent crises in the international monetary system, the International Monetary Fund monitors Member States' policies and possible economic and financial developments at national, regional and global levels through a formal system known as surveillance (Bran P., Costica I., 1999). The International Monetary Fund provides advice to member countries and promotes policies aimed at fostering economic stability, reducing vulnerability to economic and financial crises and significantly raising living standards. At the same time, it provides regular assessments of the global outlook in the World Economic Outlook, the evolution of public finances in the Fiscal Monitor and the external positions of the largest economies in its report on the external sector, all in addition to a number of regional economic perspectives.

Lending to member countries facing real or future financial problems is a key responsibility of the International Monetary Fund. Individual country adjustment programs are designed in close cooperation with the IMF and are financially supported by the IMF, and continued financial support depends on the effective implementation of these adjustments.

In response to the global economic crisis in April 2009, the International Monetary Fund strengthened its lending capacity and approved a major overhaul of its financial support mechanisms, with further reforms adopted in the coming years.

These major changes have enhanced the IMF's crisis prevention toolkit, strengthening its ability to mitigate errors during systemic crises and enabling it to better adapt its tools to meet the needs of each Member State (Brezeanu P., Simon I., Novac LE, 2005).

Borrowing resources available to low-income countries rose sharply in 2009, while the average limits on IMF-managed concessional lending facilities doubled. The access limits within the IMF's non-concessional lending facilities were again checked and increased in 2016, when the conditions for efficiency for the 14th revision were met. In addition, zero interest rates on concessional loans have been extended until the end of June 2019, and the interest rate on emergency financing is set at zero. Finally, borrowing resources amounted to SDR 11.4 Billion (with SDR 0.4 billion above the target) to support the IMF's concessional lending activities over the next decade.

The IMF provides technical assistance and training to help member countries build better economic institutions and build human capacity. This includes, for example, the design and implementation of more efficient policies for taxation and administration, expenditure management, monetary and exchange rate policies, supervision and regulation of the banking and financial system, legislative frameworks and economic statistics.

Membership shares are the main source of financial resources for the International Monetary Fund. The share of a member largely reflects its size and position in the world economy (Brezeanu P., Poanta D., 2003).

The IMF constantly conducts general rate analyzes. The last revision (the 14th revision) was completed in 2010, and quota increases became effective in 2016.

This revision doubled quota resources to SDR 477 billion (approximately $ 661 billion). In addition, credit agreements between the IMF and a group of members and institutions provide additional resources of up to approximately SDR 182 billion (USD 253 billion) and are the main fund of installments.

As a third line of defense, member countries have also pledged bilateral loans to the IMF, totaling approximately SDR 317 billion ($ 440 billion).

The International Monetary Fund is responsible for the governments of its member countries.

At the top of its organizational structure is the Board of Governors, consisting of one governor and one additional governor from each member country, usually the top officials of the central bank or the Ministry of Finance. The Board of Governors meets once a year at the annual meetings of the IMF-World Bank.

Twenty-four of the governors are on the International Monetary and Financial Committee or the IMFC, which advises the IMF Executive Board on the oversight and management of the international monetary and financial system.

The day-to-day work of the IMF is overseen by its 24-member Executive Board, which represents all members and is supported by IMF staff. The Director-General is the Head of the IMF and the Chairman of the Executive Board and is assisted by four Deputy Directors.

Founded in 1944, the International Bank for Reconstruction and Development - soon to be called the World Bank - has expanded into a closely associated group of five development institutions. Initially, its loans helped rebuild countries devastated by World War II. Over time, the focus shifted from reconstruction to development, with a strong focus on infrastructure such as dams, power grids, irrigation systems and roads.

With the founding of the International Finance Corporation in 1956, the institution became able to lend to private companies and financial institutions in developing countries.

The establishment of the International Development Association in 1960 put a greater emphasis on the poorest countries, part of a constant shift towards poverty eradication becoming the main objective of the Bank Group.

The subsequent launch of the International Center for the Settlement of Investment Disputes and the Multilateral Investment Guarantee Agency further complemented the Bank Group's ability to connect global financial resources to the needs of developing countries.

The last 70 years have seen major changes in the world economy. Meanwhile, the World Bank Group - the world's largest development institution - has worked to help more than 100 developing and transition countries adapt to these changes, providing loans and tailored knowledge and advice. The banking group works with governments, the private sector, civil society organizations, regional development banks, think tanks and other international institutions on issues ranging from climate change, conflict and food security to education, agriculture, finance and trade. Political Economy of the World Bank, 2009).

All these efforts support the two objectives of the Bank Group to end extreme poverty by 2030 and to stimulate the common prosperity of the poorest 40% of the population in all countries.

Today, the Bank Group's work covers almost all important sectors for combating poverty, supporting economic growth and ensuring sustainable gains in the quality of life of people in developing countries (Luchian D., 1992). Although the selection and design of solid projects remain paramount, the Bank Group recognizes a wide range of factors that are critical to success - efficient institutions, sound policies, lifelong learning through evaluation and knowledge exchange and partnership, including with the private sector. long-term with more than 180 member states and reaches them to address increasingly global development challenges (World Bank Assistance to the Financial Sector, 2006).

On critical issues such as climate change, pandemics and forced migration, the Bank Group plays a leading role because it is able to convene discussions between its country members and a wide range of partners (Luchian D., 1992). It can help address crises while building the foundations for long-term sustainable development.

The evolution of the Bank Group was also reflected in the diversity of its multidisciplinary staff, which includes economists, public policy experts, industry experts and social scientists, based in Washington, D.C. and in the field. Today, more than a third of the staff relies on offices in the country. Because the demand for its services has increased over time, the Bank Group has grown to meet them. Looking ahead, the World Bank made four loans totaling $ 497 million in 1947, compared to 302 commitments totaling $ 60 billion in 2015.

3. Research methodology

The working method is the one of documentary research in archives, of qualitative and quantitative type. I used the documents archived within the International Monetary Fund and the World Bank. The archive information was supplemented by reading several books and specialized articles, which deal with the topic of research. We also used scientific research papers and interviews with dignitaries involved in Romania's relations with the IMF and the WB in the current period. The statistical information identified in the archive documents was synthesized, analyzed and processed in the form of tables and graphs, which will be found during the research.

4. Romania's relationship with the International Monetary Fund

Romania has been a member of the IMF since December 15, 1972 and is part of the team led by the Netherlands, Anthony de Lannoy is the Executive Director of Romania within the International Monetary Fund.

The fund has had a resident representative for Romania since 1991. As of September 2019, the IMF's resident representative in Romania is Nadeem Ilahi, who previously held the position of head of mission for Bosnia and Herzegovina, Albania and Montenegro.

Romania's share of the IMF amounts to SDR 1,811.4 million or 0.38% of the total share. Romania's voting power is 19,579 votes representing 0.39% of the total.

Financial assistance: as a member of the IMF, Romania has used the institution's resources on 13 occasions (detailed below) as financial support for the government's economic programs.

Table no. 1 - Loans granted by the International Monetary Fund to Romania

Type of agreement	Date of approval	Expiration or termination date	Approved amount (SDR million)	Amount drawn (millions of SDRs)
Stand-by	03/10/1975	02/10/1976	95,0	95,0
Stand-by	09/09/1977	08/08/1978	64,1	64,1
Stand-by	15/06/1981	14/01/1984	1.102,5	817,5
Stand-by	11/04/1991	10/04/1992	380,5	318,1
Stand-by	29/05/1992	28/03/1993	314,0	261,7
Stand-by	11/05/1994	22/04/1997	320,5	94,3
Stand-by	05/08/1999	28/02/2001	400,0	139,8
Stand-by	31/10/2001	15/10/2003	300,0	300,0
Stand-by	07/07/2004	06/07/2006	250,0	0,0
Stand-by	04/05/2009	03/05/2011	11.443,0	10.569,0
Stand-by	25/03/2011	15/03/2013	3.090,0	0,0
Preventive stand-by	25/09/2013	24/09/2015	1.751,3	0,0

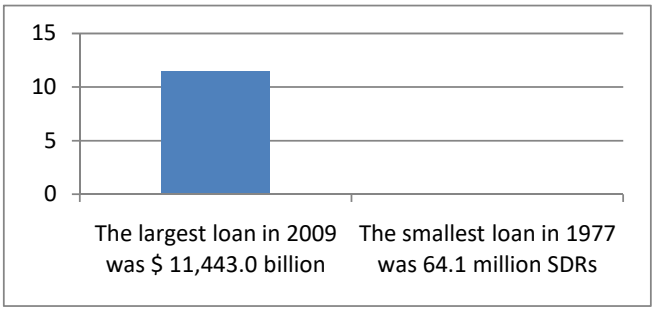
Source: www.mae.ro

The table above shows all the loans granted to Romania by the IMF.

The largest loan granted to Romania was in 2009, when Romania was severely affected by the financial crisis. The IMF granted Romania SDR 11,443.0 billion. Also, the lowest loan was in 1977 with only SDR 64.1 million.

The SDR value is set according to the US dollar, the euro, the Japanese yen and the pound sterling, which represent 44, 34, 11 and 11%.

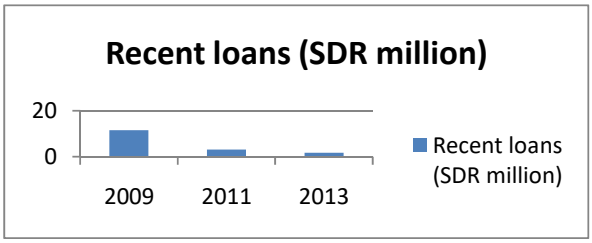
Chart no. 1 - International Monetary Fund Loans



Source: Own processing of statistical data taken from the MFI website

The graph above shows graphically the largest and smallest loan, emphasizing the size of the largest, because without it Romania would have had much bigger problems in the fight to get out of the crisis at the time of 2008-2010.

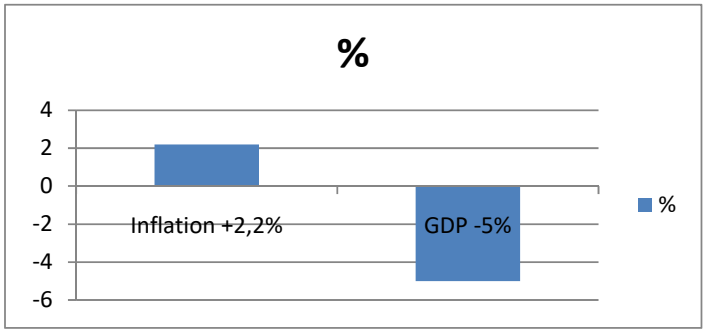
Chart no. 2 - Recent loans



Source: Own processing of statistical data taken from the MFI website

The chart above shows new loans granted to Romania by the International Monetary Fund in 2009, 20011 and 2013, respectively.

Chart no. 3 - Inflation and GDP



Source: Own processing of statistical data taken from the MFI website

According to the International Monetary Fund, Romania entered 2020 with a budget deficit of -5% of GDP and also with an inflation of 2.2%, the budget deficit being higher than the previous year, and the inflation rate lower.

5. Romania's relationship with the World Bank

The collaboration between the World Bank and Romania began in 1972, when Romania became a member of the International Bank for Reconstruction and Development. Our first loan, worth 60 million US dollars, was offered in 1974 for the Tecuci Fertilizer Factory. In 1978, we supported

emergency reconstruction after floods and earthquakes, as well as investments in agriculture, energy, water supply and other sectors.

Romania's priorities include investment in infrastructure, healthcare, education, job creation and the development of small and medium enterprises. The country's economic growth has been one of the highest in the EU since 2010.

Major projects funded by the World Bank

a. Complementing EU support for the agricultural restructuring project (CESAR)

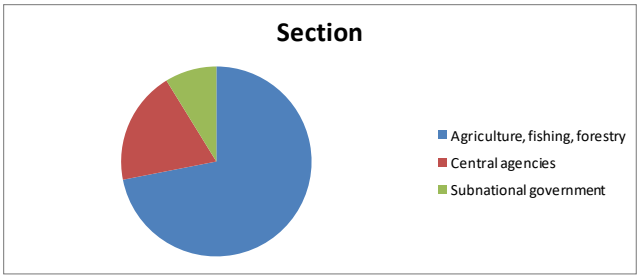
Table no. 2 - CESAR project

Project ID P100638	Status Closed	Coordinating leader Gabriel Ioniță
The country Romania	Date of approval November 27, 2007	Total project cost $ 70 million
Region Europe and Central Asia	Closing date September 30, 2014	The amount of the commitment $ 65 million

Source: www.worldbank.org

This table presents the official data of the CESAR project, with all the necessary details.
The figure below shows the division of money into sectors.

Figure no. 1 - Money Distribution Sectors



Source: www.worldbank.org

b. Development policy operation - DDO

The objective of the Development Policy Loan with a program of deferral options for Romania is to support the efforts of the Romanian Government to meet the fiscal sustainability objectives defined by the European Union (EU) fiscal package.

c. Health system reform:

- The objectives of this project
- Improving the quality of the health system
- Improving efficiency
- Ease of access

d. The secondary education project in Romania

The development objectives of the secondary education project for Romania are to improve the transition from upper secondary education to tertiary education and to increase enrollment in the first year of tertiary education in the educational institutions supported by this project.

e. Project to improve justice services

The development objective of the project to improve justice services for Romania is to improve the efficiency and accessibility of the justice institutions concerned.

f. Improving the response to emergencies

The objective of the development of the Project for Improving Resistance and Emergency Response for Romania is to increase the resilience of Romanian police facilities, smurd which are essential to respond to emergencies and disasters and to strengthen institutional capacities for preparedness and response to situations emergency.

g. Health

This project is the latest project financed by the World Bank, Romania having at its disposal 558.0 million USD.

6. Conclusions

The International Monetary Fund (IMF) is an international financial institution that brings together 186 member countries, established in 1945, following the United Nations Conference in Bretton Woods (USA). Its main objectives are to promote international monetary cooperation, facilitate the expansion and balanced growth of international trade, promote exchange rate stability, provide assistance for the creation of a multilateral payment system and make its resources available to member countries facing imbalances. of the balance of payments in achieving these objectives.

The World Bank Group is one of the largest sources of funding and knowledge in the world for developing countries. Its five institutions are committed to reducing poverty, increasing common prosperity and promoting sustainable development. Together, the IBRD and the IDA form the World Bank, which provides financing, policy advice and technical assistance to governments in developing countries. IDA focuses on the world's poorest countries, while IBRD helps middle-income and poorer credit countries.

IFC, MIGA and ICSID focus on strengthening the private sector in developing countries. Through these institutions, the World Bank Group provides financing, technical assistance, political risk insurance and dispute resolution to private enterprises, including financial institutions.

We can see all the important sums that the IMF and the World Bank have given to Romania. The largest loan granted to Romania was in 2009, when Romania was severely affected by the financial crisis. The IMF granted DST 11,443.0 billion to Romania. At the same time, the World Bank has financed and is financing various regional and territorial development projects, as well as providing support in the fight against the Covid-19 virus.

Finally, we want to emphasize that Romania has had and continues to have a very good partnership with the International Monetary Fund and the World Bank. One thing is certain, without the substantial loan from 2009, Romania would have had big problems in the short term, but the concluded agreements can damage in the long term, going into inability to pay the debt.

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Section II

Regional Development, Integration and Globalization

Considerations on Asset Management and Turnover Factorial Correlations: The Case of Dobrogea Region, Romania

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Abstract

Analyzing business development in emerging economies has been a long time focus of theorists. Predilection for asset management or labor effectiveness may present a disparate progression in neighbor regions. This paper creates a snapshot of asset management predilection, labor evolution and turnover analysis in Dobrogea region with a correlative perspective of the two indicators. The methodology of our paper is a case study approach, with particular focus on context observation and quantitative analysis of operational and financial metrics. The comparison and contrasts between the two counties of Dobrogea identify interesting divergent issues and a growing concern for business knowledge awareness and sustainable development strategies.

Key words: asset management, factorial correlation, business efficiency
J.E.L. classification: J10, O12, P52

1. Introduction

The ever-changing economical context faces managers with multiple challenges and the need to adapt and overcome obstacles to help increase efficiency. Therefore, research brings value to business practice, by summarizing and integrating core findings from different professional areas into a system of "evidence-based management" (Schmidt, 2015, p.1-17). Improvement of compliance (Bird and Park, 2017, p. 315), enhancing collaboration, and unlocking information that leads to better managerial decisions (Munteanu, 2018, p.1251) channels business energy into financial efficiency.

The current study focuses on enhancing research in emerging economies (Munteanu and Mirea, 2017, p.554), choosing as area of interest the Dobrogea region of Romania. The land of Dobrogea presents a distinct interest in researching economic interdependencies because of its' strategic geographical position and the contrasting economic business indicators of its' two counties.

2. Literature review

Understanding the business reality and rejoicing demographic characteristics, business statistics and managerial knowledge into a systematic research may contribute to pave a way for economic wealth and constructive goal driven competition. Literature shows preoccupation for analysis of links and interdependencies between demographic importance and economic development in different parts of the world (Satterthwaite, 2006, p.13), with accents on the need for improvement of development planning (Momen, 2009).

The role of small towns and cities in developing countries has long been a preoccupation of theorists (Rondinelli, 1983, p.379; Owusu, 2008, p.454). The subject arose controversies over time regarding the limitation of development in poor countries or the appropriateness, scarce attention to rapid urbanization (Overman and Venebles, 2005), decisiveness of agricultural policies (Chouguill, 1989, p.267), or accountability of public governance (Munteanu et.al., 2020, p.2990).

Financial effectiveness and productivity measurement were also analyzed in close connection with human resource intervention (David, 2003), technological capabilities (Aboukorin, 2014) and urbanization (Bryan et.al., 2020). The role of human factors in asset management systems was identified as significant (Trevelyan, 2007), while other studies point to a further need to explore the role of human factors in asset management and financial efficiency (Reid and Xerri, 2013, p.76).

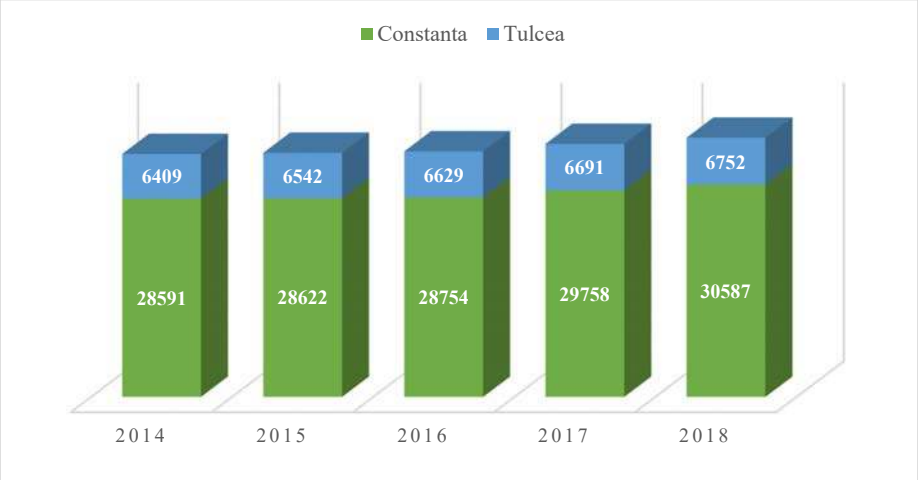
Operational productivity relies on vigilance in managing costs (Madu, 2000, p. 939-940), judicious allocation of budget and risk mitigation, attributes that have been defined in time by the concept of asset management. Efficient functioning of modern society relies heavily on physical assets (Malano et. al., 2005, p.108) and resourcefulness (Kosny and Piotrowska, 2019, p.427) of asset management.

3. Research methodology

Our research explored the available dataset and developed a valuable case study investigation, based on a comparative financial snapshot supervised by a statistical quantitative analysis of the operational and financial values of the two neighbor counties of Dobrogea, a Romanian region in the Balkans. A particular focus was set on the correlation between three main economic indicators: turnover, fixed assets and number of employees.

The current study investigates a series of financial indicators of a vast number of companies with headquarters in the Dobrogea Region, as shown in Figure 1. The data is processed based on the public data provided by Romania's National Institute of Statistics (INSSE). The database is completed with financial indicators provided by Romania's Public Finance Ministry. By combining information from the two institutions, we could obtain a valuable and documented snapshot of the financial evolution of turnover, labor indicators and incentives of the predilection for assets management in the Dobrogea region. The data includes active companies, with positive reported turnover during 2014-2018, with public, mixt or private ownership.

Figure no. 1. Number of analyzed companies in Dobrogea Region, Romania



Source: INSSE Romania

According to the data graphically presented in Figure 1, the number of companies acting in the analyzed region followed a growing trajectory during 2014-2018. Although the two counties of Dobrogea's region, Constanta and Tulcea, have great potential of development, with strategic geographical position by the Black Sea, with direct access to the Danube River, one of Europe's important rivers that connects the Black Sea to Germany, with territories favorable for agricultural flourishment or tourism boost, they don't present the same predilection for business.

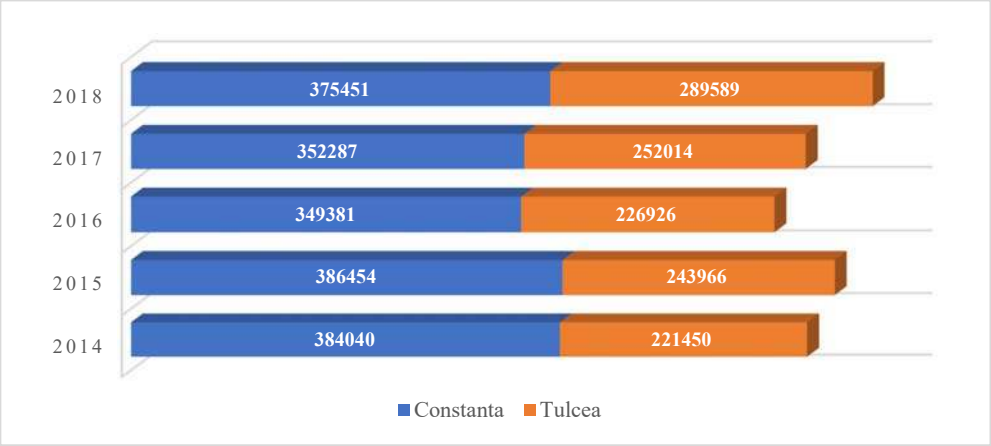
The number of operational companies in Constanta is significantly higher than the number of operating businesses in Tulcea, throughout the whole analyzed period. The comparison between the two counties shows interesting results when it comes to business, bearing in mind that the both counties have similar great business opportunities. From a numeric perspective, it seams that the

number of companies operating in 2018 Constanta increased with 1996 new activities compared to the year 2014, while the number of new companies in Tulcea rose with only 343 during the same period. The numeric representation of the two counties opened the interest to investigate new statistical financial barometers.

4. Findings

The investigated data broaden the image of operating businesses in Dobrogea region with a comparative approach on turnover generated by the acting companies in the targeted period of time. The available data allowed us to calculate an annual medium turnover for the operating companies in each county, as shown in Figure 2.

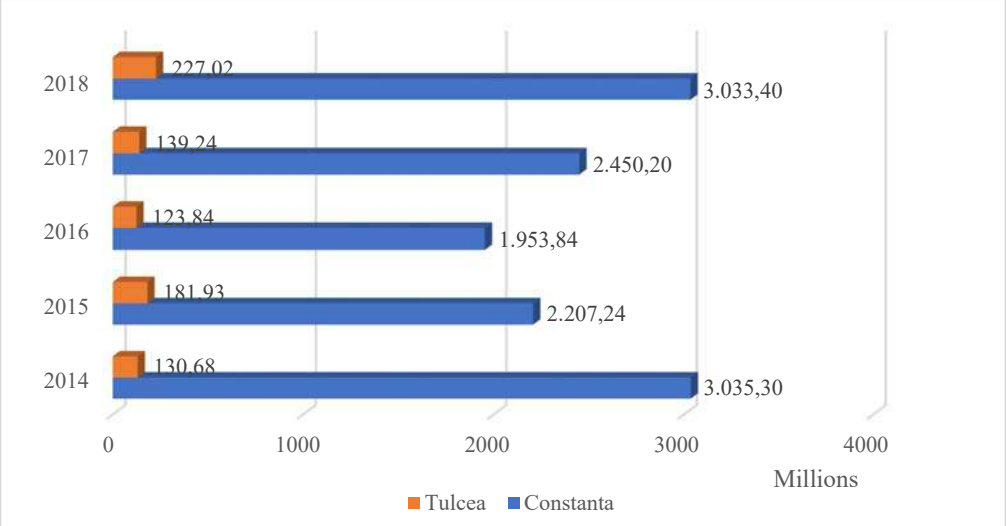
Figure no. 2. Evolution of medium turnover, in euro



Source: INSSE Romania

The calculated medium turnover followed a similar oscillatory trajectory in both counties and in the whole region of Dobrogea, during the same period of time. The medium turnover results presented in Figure 2 also point to a better operational financial result in Constanta compared to Tulcea. It seems that the companies with headquarters in Constanta are more efficient in developing and operating their business than their competitors in Tulcea.

Figure no. 3. Evolution of maximum turnover, in euro



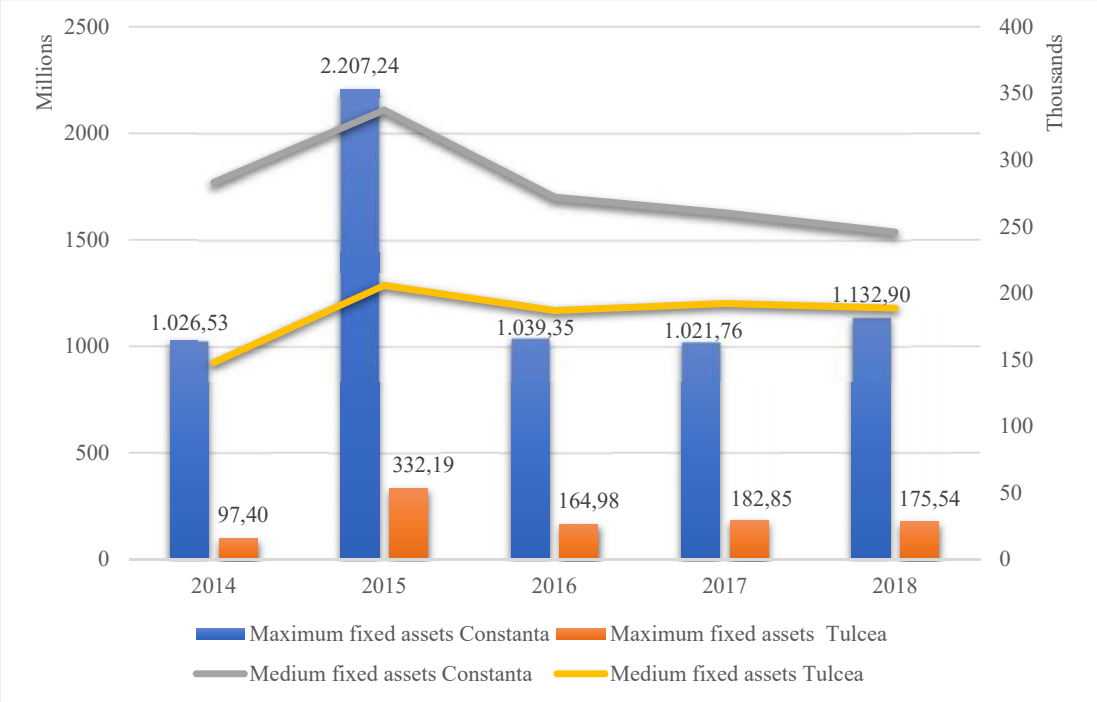
Source: INSSE Romania

A very interesting discrepancy regarding corporate efficiency between the two neighbor counties was revealed by the maximum turnover obtained by companies in each of the analyzed years, as presented in Figure 3. It seams that the maximum turnover obtained in Constanta in 2014 was 3035 million euros, while the maximum turnover obtained in Tulcea was 130 million euros. Similar significant discrepancies appear every year. The situation points to a need to further investigate the business conditions in each county and to substantiate which may be the most relevant factors that need to be improved in order for the two regions to be brought to a similar potential of economic development.

The analysis of assets management predilection conducted on medium fixed assets annual indicators and extreme values of assets is presented in Figure 4. Similar to the previous results, the medium fixed assets indicators reported by companies in Constanta are significantly higher than the medium assets reported by the competitor companies in Tulcea. The graphical representation in figure 4 reveals a boost in investments in 2015 in both counties, followed by a depreciation of assets during 2016. After 2016, the medium fixed assets indicators point to a slight upward trajectory of investment in Tulcea, whilst the fixed asset management follow a depreciation trend in Constanta.

According to the graphical representation of results in Figure 4, the fixed assets management predilection reveals maximum indicators in Constanta (2207 million euros in 2015) undoubtedly higher compared to the indicators reported in Tulcea (332 million euros in 2015). Nevertheless, during 2016-2018 the dataset point to a slight revival of investments in Tulcea that suggest a healthy economic concern for fixed assets efficient management.

Figure no. 4. Evolution of fixed assets, in euro



Source: INSE Romania

The results in the labor sector for the two counties in Dobrogea reveal an interesting situation. Figure 5 presents the evolution of the medium number of employees, while Figure 6 displays the maximum number of employees in Constanta compared to Tulcea.

The medium trend of number of employees in Constanta point to a descending trajectory, different from the oscillating trend with increase slight tendencies of the same indicator in Tulcea. As per Figure 5, the medium number of employees in Constanta in 2014 in higher than in Tulcea, but the situation reverses in 2018 when the indicator calculated for Tulcea is higher. The situation suggests a better employment rate in TUlcea during the analyzed period.

Figure no. 5. Evolution of the medium number of employees

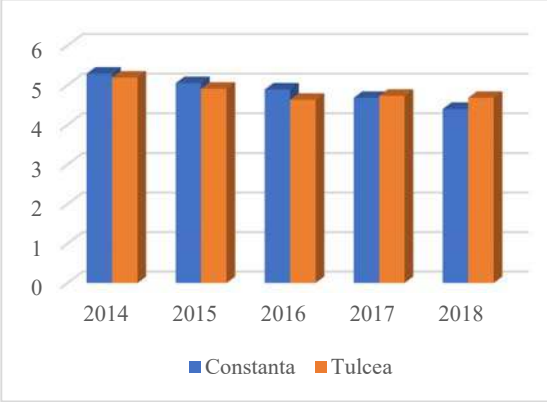
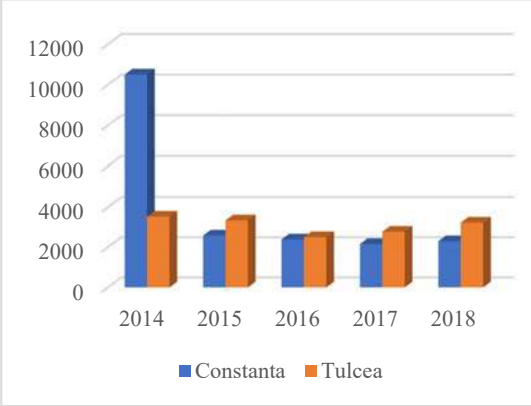


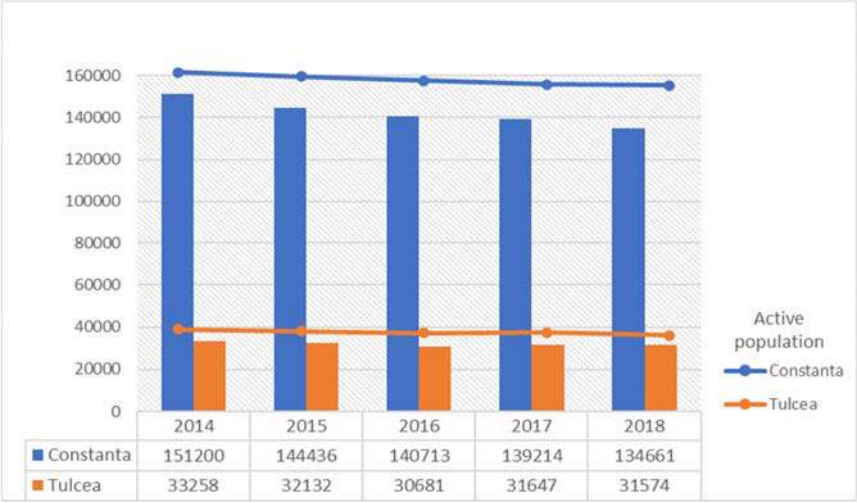
Figure no. 6. Evolution of the maximum number of employees



Source: INSE Romania

The conclusion indicated by Figure 5 seems to be supported by the representation of the evolution of the total number of employees in Dobrogea, in Figure 7. The number of employees in Constanta present a downward trajectory during the 5 analyzed years, leaving a greater rate of unemployment compared to Tulcea. Of course, the unemployment rates are also connected with the indicators for the active population, which present very different dimensions in the two counties. The graphical representation displays high occupancy in Constanta compared to Tulcea.

Figure no. 7. Evolution of the total number of employees in Dobrogea Region, Romania



	2014	2015	2016	2017	2018
Constanta	151200	144436	140713	139214	134661
Tulcea	33258	32132	30681	31647	31574

Source: INSE Romania

In order to complete the comparison assessment, we conducted a correlation analysis between the relevant indicators presented above. First, we observed the correlation between the number of employees (EMP) and the value of the turnover (TO) reported by the number of analyzed companies in each of the two counties. Also, the correlation between the value of turnover (TO) and the value of fixed assets (FA) reported by the number of counties in each county was observed. The results are presented in Table 1.

Table no. 1 Correlation of financial indicators in Dobrogea region, Romania

Period	Correlation of EMP and TO		Correlation of TO and FA	
	Constanta	Tulcea	Constanta	Tulcea
2014	0.148	0.737**	0.760	0.566**
2015	0.370	0.825**	0.687	0.303**
2016	0.379	0.637**	0.773	0.393**
2017	0.280	0.565**	0.848	0.384**
2018	0.290	0.794**	0.850	0.460**

Source: Authors' analysis based on the INSE indicators

The correlation between the number of employees (EMP) in Constanta and the value of the reports turnover (TO) point to an insignificant correlation for the analyzed companies. The situation indicates that, in Constanta county, the number of employees in a company does not seem to have a decisive influence on the level of the reported turnover. Nevertheless, the strong correlation results between TO and FA suggests that in Constanta the value of the reported turnover is significantly influenced by the increase of fixed assets. The very high correlation values in 2017 (0.848) and in 2018 (0.850) signals that during this period the reported turnover value was highly connected with the reported fixed assets of the population of analyzed companies.

The correlation results are different in Tulcea and point to a stronger connection between the reporting of operational turnover and the number of employees, whilst the correlation between turnover and fixed assets values illustrates a lack of influence. It seems that in Tulcea the employees have a greater contribution to the achievement of the turnover, especially in 2015, where the correlation indicator of 0.825 indicates that the number of employees highly contributed to the achievement of operational turnover.

5. Conclusions

Our study captures a snapshot of the financial evolution of turnover, labor indicators and fixed assets in the Dobrogea region and assesses different business approaches in the two counties that bring valuable incentives on the discrepancies of economic development in the region. The results reveal that in Constanta county there are incentives pointing that the fixed assets management contributes to the achievement of operational turnover. In Tulcea, the financial results of companies rely more on employees than on fixed assets management. This may be a possible explanation for the difference in economic development between the two counties in Dobrogea, which although have similar demographic, agricultural, touristic potential reveal very different business indicators.

The investigated dataset that documented our findings include also public owned companies, which also contribute to the relevance of the results. The state contribution in Dobrogea is focused on strategical areas which are predominantly located in Constanta, so the results are influenced of these particular cases. Nevertheless, the large number of companies in Constanta compared to Tulcea points to a need to develop business strategies in both counties in order to bring knowledge to business and contribute to economic development.

Our research explored the available dataset and developed a valuable comparative financial snapshot supervised by a statistical comparative analysis of the two neighbor counties of Dobrogea that points to a need to further develop the empirical economic studies in the area. Our study strives to encourage research interests for the development of the Balkan region, bearing in mind the international consensus of the acting role of small cities and towns in poverty reduction and economic development.

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Predilection for Investments and Profitability Trends of Artistic Activities in Constanta County

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Abstract

This study provides a perspective on the way companies that carry out artistic activities in Constanta County manage their performance in terms of fulfilling their objectives. These companies focus on socio-cultural objectives, while at the same time, according to the instruments used in business, they carry out income-generating activities for their sustainability in the community in which they operate.

The use of the profitability ratios method gave us the possibility to obtain different types of information and allowed the possibility to make a comparison regarding the economic-financial activity of an endeavor.

Key words: artistic activities, financial assessment, fixed assets, performance, economic profitability ratio
J.E.L. classification: M21, O10, P52, Z11

1. Introduction

Art, through specific means expresses the creativity of the human spirit, being an essential determinant of the quality of life which affects each aspect of daily activities.

Compared to science, art requires a special faculty of the soul in order to be produced, namely genius, but it can be appreciated by anyone; science, on the other hand, does not require any special faculty in order to be produced, but it can only be appreciated by specialists (Aslam and Moraru, 2017, p.42).

The art world does not function in the same way as a legislative body (Dickie, 2001, p.19), the mechanisms by which the objects of the artistic activity become members of this world must be, in a way, automatic.

The art world must be understood as a background for the practices of art creation and experimentation (Dickie, 2001, p.52). The art world is a form of implicit organization of the artistic practices, a cultural structure in which works of art are produced and operate, and the structure itself is specified in terms of a variety of cultural roles (Dickie, 1974, p.28).

The perception of art as a timeless manifestation of culture has many forms, but finding ways to measure and quantify it is a focus of our paper. Research interest manifested in finding ways to quantify cultural activities with socioeconomic indicators (Florea et al, 2020, p.291). We hereby propose a visual interpretation of financial indicators, focusing on investments and profitability in arts.

2. Literature review

The term "performance" has become extremely popular in recent years in a wide range of activities, such as art, literature and social sciences. Due to the growing popularity and use of the word, the research on the concept of performance has multiplied, trying to analyze, measure and understand the incidence in each activity (Robu and Ciora, 2010, p.109).

The specialized literature includes an impressive series of articles and studies which measure the company's performance or evaluate the impact of certain factors on it (Gruian, 2010, p.244), however, defining this concept in a singular acceptation is difficult to achieve. Performance measurement is a two-way challenge oriented to the achievement of the necessary condition for ensuring the progress of an entity, with a special care for resource use and judicious capital investment (Munteanu, 2018, p.1247). It is said that unmeasured progress does not exist. However, measurement is not an end in itself, it makes success recurrent insofar as it generates action (Niculescu, 2005, p.47).

The financial sustainability of an investment, the evaluation of the costs and revenues, related to the phases of realization and management of investments depends on the calculation of cash flows generated in the analyzed period for the private entity, the determination of the performance indicators in order to verify the feasibility of the initiative. The factors underlying an efficient performance measurement framework, the shortcomings of many "traditional" measurement systems which are mainly based on financial indicators, but also a brief commentary on more modern approaches to performance measurement are found in Parker's study (2000, p.1).

The company's performance takes into account, among others, the results obtained by using the factors of production, respectively those recognized and presented in the profit and loss statement. Profitability is one of the forms of manifestation of the efficiency of a company's economic-financial activity, respectively of the use of the means of production and of the labor force in all the stages of the economic circuit (Spătariu, 2006, p.175).

The management of any activity within a company involves two major levels of decision-making: strategic decisions and operational decisions (Vancea, 2004, p.179). Regarding the investment policy, it represents a strategic policy and is an essential part of the general policy of the company, i.e., to generate a very high capital expenditure. Any acquisition is a strategic capital investment and involves a fair assessment of its attractiveness and timeliness (Alkaraan and Northcott, 2006; Carr, Kolehmainen and Mitchell, 2010; Carr and Tomkins, 1996; Harris, Emmanuel and Komakech, 2009). In this sense, it is necessary to pay more attention to the cognitive and managerial assessments of the professionals involved in evaluation. Kahneman and Klein (2009) state in their study that the evaluation of a possible investment, by an expert, through an intuitive process based on expertise, greatly affects the strategic and financial reasoning. The quality of a capital investment decision depends largely on the professionals who issue the strategic and financial reasoning (Haka,2007), their expertise being extremely important, even more important than the technical tools used in the evaluation (Ericsson, 2006; Kahneman and Klein, 2009; Simon, 1992).

3. Research methodology

In order to outline the case study, we have chosen to analyze the economic-financial indicators regarding investments and profitability based on the statistical data of the companies operating in the representative fields of artistic activity in Constanta County. The data used in the analysis belong to the calendar year 2019, i.e., the reference period, the last statistical data having been processed, with a definitive character, provided by the National Institute of Statistics of Romania (INSSE) and the Ministry of Public Finance (ANAF / National Agency for Fiscal Administration). We have processed the statistical data using the statistical software SPSS for a considerable number of companies and the analysis of the indicators has allowed us to obtain a graphical representation of the business contexts in the field of artistic activities in Constanta.

The main classes of artistic activities included in the analyzed information database are:

- Architectural activities
- Specialized design activities

- Artistic interpretation activities (shows/performances)
- Support activities for artistic interpretation (shows/performances)
- Artistic creation activities
- Library and archive activities
- Management of monuments, historic buildings and other tourist attractions

We have performed a quantitative processing of the statistical data, through the graphical method having managed to highlight the comparison between the activities.

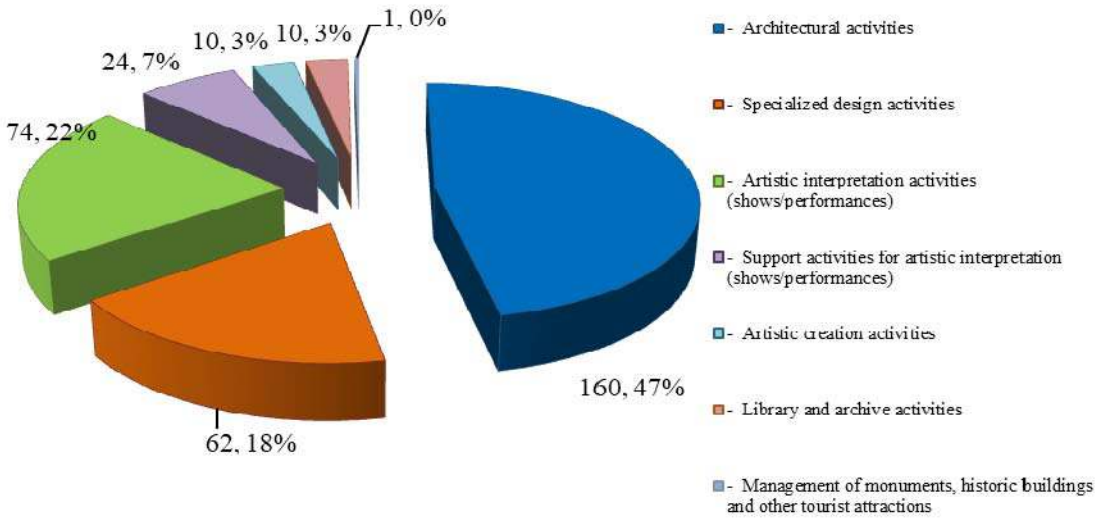
We have used the profitability ratios method which offers the possibility of obtaining different information and creates the possibility of making a comparison in all three plans, positions, time, and space regarding the economic and financial activity of a company.

4. Findings

At the level of Constanta County, annual financial statements were reported by 21,590 companies, with a turnover higher than zero. Of the total number, the companies which carry out artistic activities within the analyzed population are 341, which represents a percentage of 1.58%.

The number of companies specialized in the analyzed activities have different ratios according to the graph in figure no. 1.

Figure no. 1. The percentage of companies specialized in artistic activity



Source: Author's processing based on the INSSE indicators

Within the indicators measuring the performance of a company's activity, the highest ratio belongs to those which measure its profitability, both in absolute terms, through the profits generated by the activity, and in relative terms, with the help of economic, financial or commercial profitability ratios. The way these indicators reflect the actual performance of the enterprise depends on the quality of the available accounting information on the basis of which they are calculated. Profitability ratios are synthetic indicators of the efficiency of the company's activity, they are relative quantities which are determined as a ratio between effect indicators (result) and indicators which reflect an activity flow or a "stock". The profitability ratio is a ratio between an indicator of results (profit or loss) and an indicator which reflects an activity flow (net turnover, used resources, etc.) or a stock (equity, total assets, etc.) (Vâlceanu et al., 2005, p.14).

Based on the main operational indicators reported in the annual financial statements, by the companies having artistic activities as their main object, we determined the average values for the economic profitability ratio. The economic profitability ratio was calculated for each company, by using the gross profits to total assets ratio. Thus, the economic profitability ratio highlights the performance of the total assets of the enterprise, as a ratio between the economic results and the

economic means which are employed in order to obtain this result. The economic profitability ratio is independent from the fiscal pressure since it takes into account the gross result and it expresses the efficiency in using the asset to obtain profit. It is one of the most important profitability ratios and it measures the performance of the entire invested capital materialized in the company's assets.

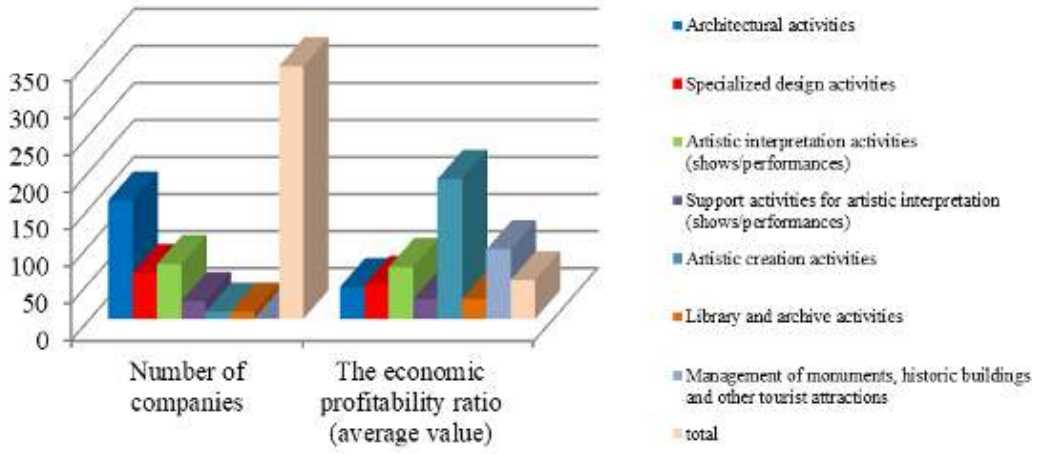
For the 341 companies which were subjected to the analysis, the situation is presented according to Table no. 1

Table no. 1. Situation of the economic profitability ratio (average value) by types of artistic activities

	Number of companies	**The economic profitability ratio (average value) %**	**Total assets (average value) RON**	**Gross profit (average value) RON**
Architectural activities	160	43.22	318875.52	102670.91
Specialized design activities	62	46.02	254265.69	67880.89
Artistic interpretation activities (shows/performances)	74	69.92	146006.01	36207.24
Support activities for artistic interpretation (shows/performances)	24	26.75	1640528.17	327519.08
Artistic creation activities	10	189.09	207590.40	62932.20
Library and archive activities	10	26.71	279160.70	78982.30
Management of monuments, historic buildings and other tourist attractions	1	93.85	261639.00	245554.00
Total	341	52.33	358037.62	96306.31

Source: Author's processing based on the INSSE indicators

Figure no. 2 . Situation of the economic profitability ratio (average value) by types of artistic activities



Source: The data in the table no. 1.

We find that the highest value of the economic profitability average ratio is in companies which carry out "artistic creation activities". This type of activity usually includes companies with activities of individual artists, where operating expenses do not reach high values, at a considerable turnover. On the opposite side, with the lowest value of the profitability average ratio is the "Libraries and archives activity". This class includes: activities of the libraries of any kind, reading rooms activities, audition and viewing activities, activities of public archives which provide services to the general public or to special categories of users, such as students, scientists, company staff, members of an association, as well as activities of governmental archives: organizing collections of works, specialized or not specialized, elaborating catalogs, lending and storing of books, maps, periodicals, movies, recordings, cassettes, works of art, etc., research activities, in

order to answer to information requests, etc., photo and film archives services (National Trade Register Office - Classification of activities of the national economy - CAEN Rev.2). The causes for the closing library phenomenon, at an alarming rate, are the same as at the national level: low birth rate, school dropout, young people going abroad, but they are also political, given that the involvement of politicians remains only declarative, not practical.

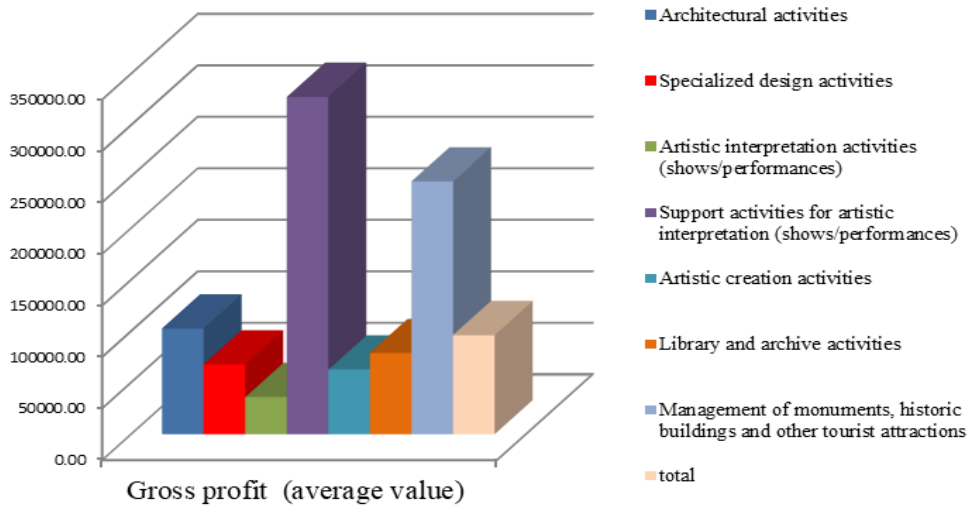
The companies with architectural and specialized design activities have the most important ratio, in terms of number, however, the economic profitability average ratio shows that the efficiency in using the asset to make a profit is around 45%.

In the "Management of monuments, historic buildings and other tourist attractions" activity, the performance of the total assets in obtaining profit for the only company operating in the County is highlighted by the economic profitability average ratio of 93.85%, a value well above the economic profitability average ratio for the total number of companies with artistic activity at the level of Constanta County, with a value of 52.33%.

From the analysis of the two indicators which were the basis for determining the economic profitability average ratio, we can notice the following:

In connection with the gross profit, we find the maximum value in the class of companies whose object is "Support activities for artistic interpretation (shows/performances)". This class includes: support activities for artistic interpretation (shows/performances), for the organization of live theatrical performances, concerts, opera or ballet performances and other stage productions; activities of directors, producers, scenery designers and builders, machinists, sound and lighting engineers, etc.; the activities of producers or organizers of artistic events broadcast live, with or without the related facilities (National Trade Register Office - Classification of activities of the national economy - CAEN Rev.2).

Figure no. 2 . Gross profit situation (average value) by types of artistic activities



Source: The data in the table no. 1.

The lowest average value of the gross profit is recorded by the companies that have as object "Artistic creation activities" but we showed that this class has the highest value of the economic profitability average ratio among the classes of analyzed companies.

Regarding the assets, which represent resources controlled by the company, obtained from past benefits and which are expected to generate future economic benefits, we will focus on the analysis of fixed assets within the companies analyzed according to table no. 2.

Capital investments in fixed assets or in current assets, in the long and medium term are made for profit and represent an important immobilization, in terms of volume and duration, aiming to obtain an optimal future profitability.

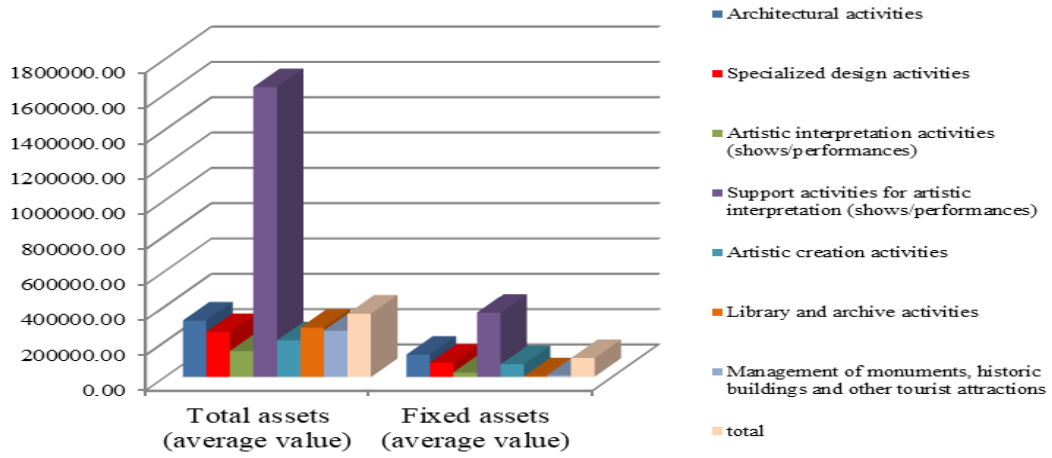
In table no. 2, we divided the capital investments into fixed assets and current assets for companies that carry out artistic activities in Constanta County and we calculated the percentage of long-term fixed assets in the total capital investments. Companies with architectural activities, with specialized design activities and artistic creation activities register weights between 31% and 39% for long-term investments. At the opposite pole, with weights between 1% and 4%, we observe the companies with library activities and archives and those with management of monuments, historic buildings and other tourist attractions.

Table no. 2. Situation of capital investment in total assets and share of fixed assets in total assets (average values) for companies with artistic activity

	Number of companies	**Total assets (average value) RON**	**Fixed assets (average value) RON**	**Current assets (average value) RON**	**Column 2/ Column 1 %**
	0	1	2	3	4
Architectural activities	160	318875.52	125900.13	187651.68	39.48
Specialized design activities	62	254265.69	80001.53	173239.42	31.46
Artistic interpretation activities (shows/performances)	74	146006.01	24873.68	120775.45	17.04
Support activities for artistic interpretation (shows/performances)	24	1640528.17	362835.17	1226539.21	22.12
Artistic creation activities	10	207590.40	71988.40	135369.70	34.68
Library and archive activities	10	279160.70	3316.20	262469.50	1.19
Management of monuments, historic buildings and other tourist attractions	1	261639.00	10416.00	251223.00	3.98
Total	341	358037.62	106792.59	244484.02	29.83

Source: Author's processing based on the INSSE indicators

Figure no. 3 Situation of capital investment in total assets (average values) for companies with artistic activity



Source: The data in the table no. 2.

5. Conclusions

The general results of this study show the efficiency of the artistic activities at the level of Constanta County. With the help of the economic profitability ratio, we have analyzed the economic properties which govern the companies belonging to the classes of artistic activities.

These companies are a good example of economic development based on socio-cultural objectives. Consumer sovereignty is considered to be the goal of the creative art activities' policy. It helps identify the nature and form of the demand for cultural services.

It was not easy to carry out an original kind of research given that, conducting a brief search in the microeconomic literature using the keyword "performance" we have found a variety of articles and studies which measure a company's performance or assess the impact of certain factors on it.

We have found that companies which carry out artistic activities in Constanta County are efficient, the initial long-term source of their performance being profitability. This involves the efficient use of resources and the effective achievement of the set objectives. Performance is built and leads to the achievement of the organizational objectives regardless of their nature and variety.

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Analysis on Rural Development of Region 2 South East

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Abstract

Agriculture is now seen as the maker of sustainable and sustainable development of an area or environment. The effects of agriculture are increasingly visible today. For a long time, agriculture has persisted in a crisis zone, but the importance of having a more accurate vision would lead to multifunctional and cost-effective development for different areas in the development regions of our country.

In this article we set out to objectively analyze the agricultural sector and rural development in the South-East region of Romania, studying in depth the elements on which the potential for agricultural development is based, but also how it can evolve with the help of the workforce in this region.

Key words: rural, agriculture, development, region, village.
J.E.L. classification: O18, Q01, Q14

1. Introduction

The rural area comprises all activities that take place outside the urban area and comprise three essential components, namely: (Bold I., Buciuman E., Drăghici N., 2003, p. 15-21)

- administrative communities made up of relatively few members and with mutual relations;
- pronounced dispensation of the population and collective services;
- the special economic role of agriculture and forestry.

The main purpose of this study depends on identifying some ways to develop the attractiveness of rural areas by reclaiming the circumstances of young employment in rural areas of South-East Region.

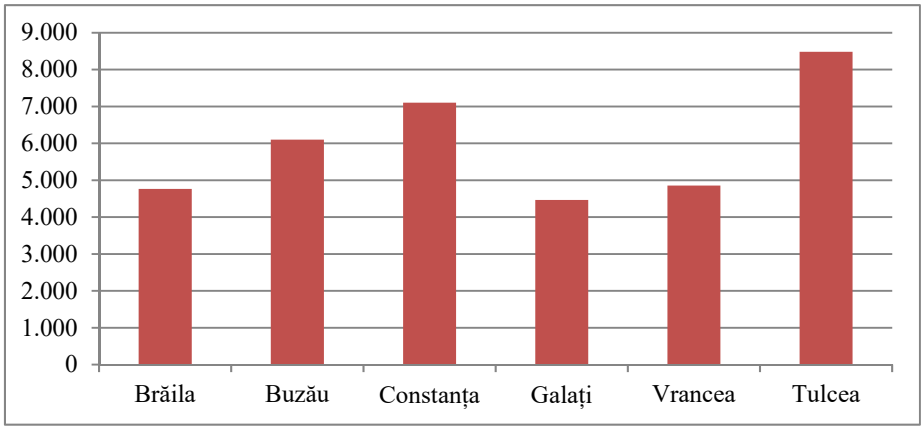
2. Theoretical background

Less satisfactory living conditions are much more prevalent in rural areas and the low level of education is a significant problem in employment.

Agriculture is an important role in the rural economy, especially since our country is a predominantly rural state. Agriculture and forestry are essential sources of Romania compared to other Member States of the European Union. We recall that almost 32.6% of the population represents the agricultural and forestry sectors compared to 5.3% of the European Union.

The municipalities and towns of the region have an intravilan area of 45,921.86 hectares, the largest share being Constanta, and at the opposite pole is Tulcea. In the figure below we see the positioning of the counties in the region by area.

Figure no. 1. Counties of Region 2 South – East



Source: Own Processed Data

3. Research methodology

In this project, like research methodology, we used examination instruments and classical observation, and the research methods were based on the basic principles of scientific research. We used instruments based on deep analysis and documentation and international literature. In this paper we used direct instruments of data and information from de internal and international literature, but also from scientific articles that was published in various journals and from books.

4.The particularities of Region 2 South – East

The region under review comprises almost all forms of relief. It is open to the sea and this gives it the opportunity to develop port activities and maritime transport. In the figure below we can observe the geographical positioning of the South-East region.

Figure no. 2. Geographical positioning of region 2SE



Source: Image taken from the https://www.cjgalati.ro/images/stories/formulare/studiu-demografie-2014.pdf website on 04.06.2020

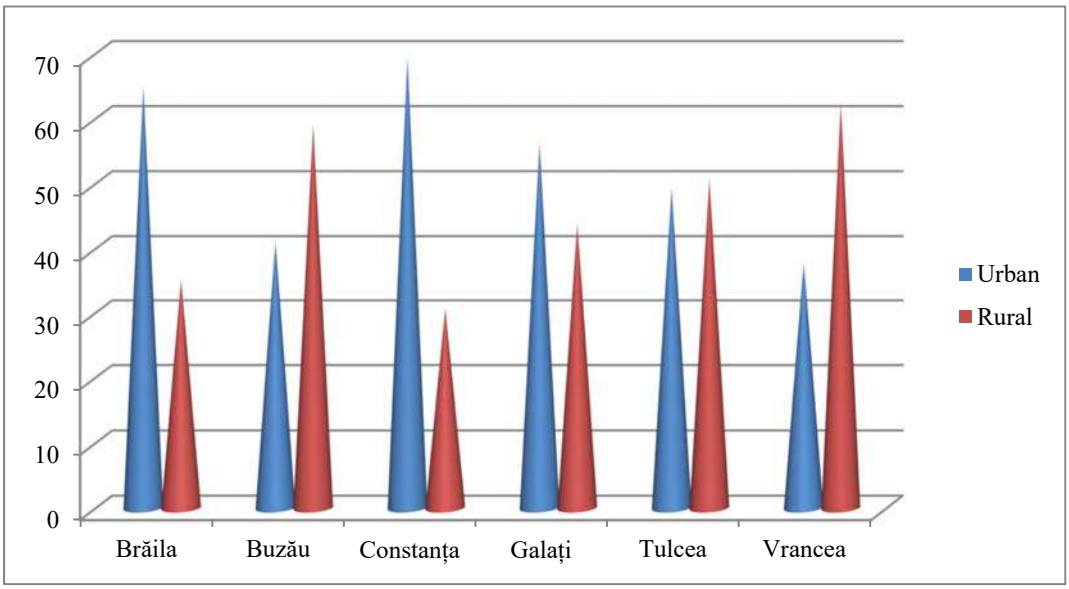
In recent years, demographic change has been reflected in different changes in the number of inhabitants of our country. From year to year there is a decrease in the population in both urban and rural areas.

The region-specific areas are as follows:

a. Area of the Bărăgan Plain;
b. North Dobrogea;
c. South-East Dobrogea;
d. Central Dobrogea;
e. Southern Moldova;
f. Curve subcarpaths;

In counties such as Brăila or Constanta the population is more prevalent in the urban area, while in Vrancea the population predominates in the countryside. We see in the following figure the distribution of the population by residence averages.

Figure no. 3. Distribution of residents by areas of residence



Source: Own processed data on PDR. Sud_Est_2014

The demographic decline in the South-East Region has a negative influence on the economy and society in general.

5. The main indicators of economic development of the South-East Region

The South-East region ranks in the middle of the podium if we refer to the number of enterprises in our country. They have undergone a negative trend in recent years, resulting in a less positive turnover.

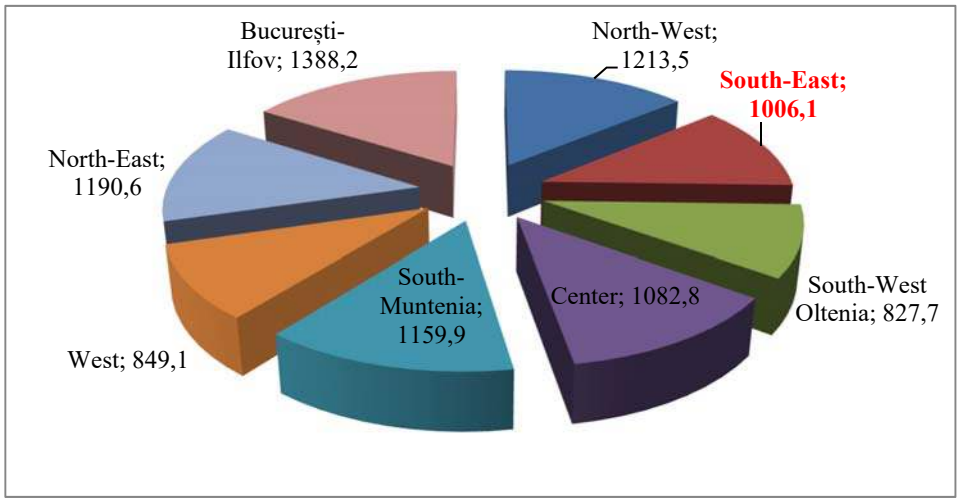
In recent years, the region's population has seen a decreasing trend due to the emigration of a large number of people, but also due to negative demographic trends.

In developed countries in Europe, such as the UK, Germany, Italy, France, the population is growing a lot more active than in our country.

The South-East region is close to the last positions according to the division of the active population by development regions. The lowest values are recorded by the West Region with 849.1 thousand workers and by the South-West Oltenia Region with 827.7 thousand workers with employment contracts in force.

In the figure below we see the distribution of the active population by development regions in our country.

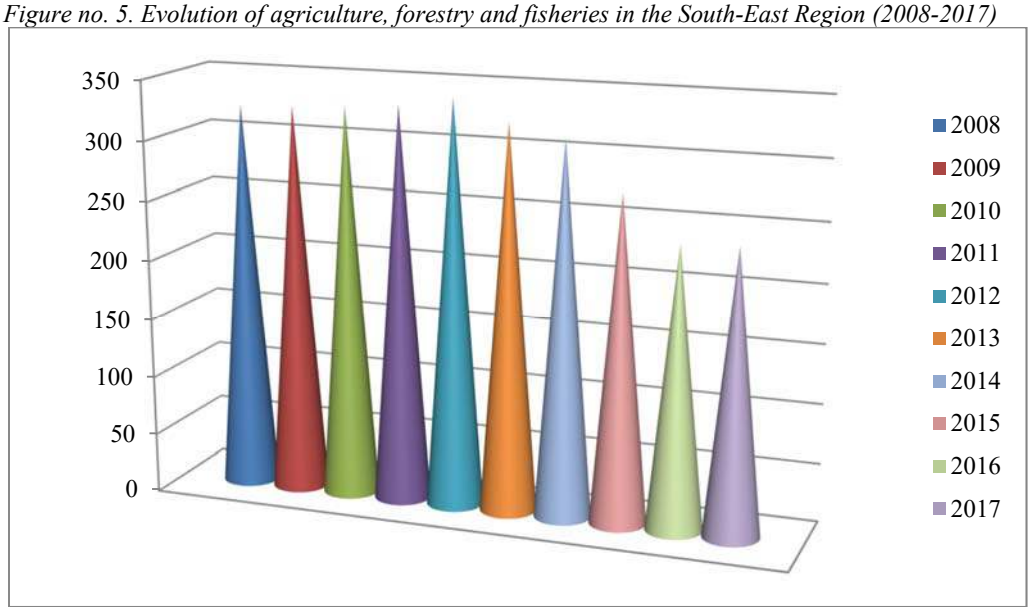
Figure no. 4. Active population in Romania (2017 – thousands)



Source: Own Processed Data from INS, Tempo – Online, 2019

The area of agriculture, forestry and fisheries has declined in recent years, and residents have gradually lost interest in this area. In the figure below we see the evolution of this area from 2008 to 2017.

Figure no. 5. Evolution of agriculture, forestry and fisheries in the South-East Region (2008-2017)



Source: Own processed data from INS, TEMPO – Online, 12.11.2020

Between 2008 and 2017, the active population of the South-East Region decreased by almost 9%, this being negative for the region, especially since the sharper decrease was in the agriculture.

Gross Domestic Product increased year-on-year. At the level of the Region analyzed, the highest level of economic development is recorded by Constanta, and the lowest level is recorded by Tulcea County with only 5,944.9 million lei. In the table below we see GDP at the level of the South-East Region in the period 2012-2016.

Table no. 1. Gross Domestic Product by Counties, 2012-2016, South-East Region

Counties	Years				
	2012	**2013**	**2014**	**2015**	**2016**
Total	*64.410,4*	*71.624,5*	*75.293,7*	*76.189,7*	*79.909,8*
Brăila	6.945,8	7.410,7	7.360,7	7.710,3	8.382,3
Buzău	8.714,8	9.579,7	9.438,8	10.258,4	10.435,3
Constanta	26.322,5	30.566	33.947,8	32.791,6	34.433,7
Galaţi	11.318,6	12.195,1	12.646,9	12.613,6	12.9470,1
Tulcea	4.902,8	5.252,4	5.151,4	5.519,2	5.944,9
Vrancea	6.205,9	6.620,6	6.748,1	7.296,6	7.743,5

Source: Own processed data from INS, TEMPO- Online, 12.11.2019 (Evolution of economic development in the South-East Region)

6. Conclusions

European states are going through a multitude of changes that are generating essential changes in their development. In recent years, certain measures have been taken to develop and capitalize on underdeveloped areas in order to create a balance between regions.

In this paper we briefly analyzed both the results and the effects of the evolution of the South-East region taking into account the external environment. The work consists of two parts. In the first part of it we specified some of the peculiarities of the South-East Region, and in the second part we chose to talk about the evolution of economic activity in this area, based on the countryside and especially on agriculture, forestry and fisheries.

The information from this study led to an accurate X-ray of the level in the region is also the need to develop a set of plans and measures to help the growth of the development sectors.

For the development of the economic environment in the region we have identified a number of measures, namely:

a. Development, but also digitisation of the rural area by increasing the agrarian domain;
b. Improving agriculture through support activities such as spin-offs or start-ups;
c. Increase business competition through the development of industrial and technological parks;
d. Development of the educational environment in rural areas.

These measures shall take into account the efficient use of the funds and resources enjoyed by the whole region for its development.

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Romania's Economy between the Global Financial Crisis and the Health Crisis

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Abstract

Over the last decades, the countries around the world have experienced a greater number of crises compared to the period between World War II and the 1980s. Notwithstanding all the suffering it causes, a crisis can also be seen as a necessary evil, since it leads to implementing the measures needed to regulate the economy.

Through the adopted approach we have tried to highlight the fact that in Romania there was a certain similarity in terms of the evolution of the economic indicators and the behavior of the decision makers in relation to the global financial crisis, respectively to the crisis generated by the current pandemic.

The objective of this paper is to emphasize the need for the Romanian decision makers to show more anticipation and accuracy in implementing the measures needed to be taken both in the period preceding the onset of the crisis and during its actual manifestation.

Key words: economic crisis, cyclicality, budget deficit, trade deficit, public duty
J.E.L. classification: F44, G01, H60

1. Introduction

From a historical perspective we can say that the manifestation of economic crises was also recorded in the pre-capitalist periods. It should be emphasized that the information on the economic crises in the mentioned periods is limited either due to the scant attention paid to them or to the magnitude and diminished effects which characterized economic shocks.

The increase in public expenditures and implicitly the deepening of the budget deficit are causes which facilitated the emergence of economic crises. Decision makers' appetite for ensuring consumption-related debt is largely a general feature. For example, in 1800 the public debt of the British Empire amounted to 272 million pounds, and in 1820 it reached 844 million pounds. Thus, in just 20 years, the debt of the British Empire increased more than 3 times, which had a negative impact on the standard of living of the British and the inhabitants of the colonies. (Berca, 2011, p. 16)

Capitalism has been and is periodically marked by economic crises. Socialism in its turn faced many crises which were carefully camouflaged by the centralized system.

In total dissonance with socialism, capitalism throughout its existence has been characterized by a permanent adaptation to the disturbances generated by a multitude of internal or external factors. However, we must not forget certain phenomena with a negative impact which occur in capitalist societies.

Regarding the cyclicality of the crises, this is determined by the cyclicality of the levels reached by certain indicators, such as: inflation, exchange rate, wages, interest rate, etc.

The recurrent nature of the crises is a global problem. Crises affect both the rich and the poor, and the magnitude of the impact can be different depending on the specific situation in which these phenomena occur.

The Experience gained over time shows that decision-makers regularly tend to fool themselves by implementing measures determined by the desire of some to maximize profit. In this category we can also include populist measures generated by electoral strategies.

In the last 4-5 decades the perpetuity of the alternations between the periods of economic boom and periods marked by recession has become more and more evident. At the same time, we must note that the interval between two successive crises tends to decrease, and the impact is increasingly amplified.

In addition to the causes generated by the evolution of the markets, crises are caused by certain features of the human nature, such as greed, indifference, herd instinct, misinterpretation of market signals, attitude toward risk, selfishness, exclusion.

The increasing degree of integration of the financial markets and the liberalization of capital and commodities movement have led to an increase in the global nature of the crises.

2. Theoretical background

The special dynamics of economic phenomena in the capitalist system, as well as the wrong measures promoted by some governments, make crises imminent and even necessary. After re-entering the rigors of the capitalist economy, Romania must face the economic crises that are characteristic of this mode of production.

In the period we are going through, the steps taken to highlight the causes and effects of crises are of great interest.

It should be noted that both internationally and nationally there is a rich and valuable literature on economic crises. Among the authors in the field we can list:

- Joseph Stiglitz performs an analysis of the global financial crisis and discusses the issue of resizing the role of the state in the economy;
- Johan Lybeck highlights the similarities and differences of the crises that have marked the modern history of mankind;
- Carmen Reinhart and Kenneth Rogoff, in addition to the extensive analysis of the financial crisis syndrome, highlighted the "this time it is different" syndrome that characterizes many of the politicians in power, including those in Romania;
- Alex Berca addresses the economic crises that have occurred over time, emphasizing their cyclical nature. Regarding cyclicality, there is a tendency to reduce the interval between two crises, with Romania also facing this phenomenon.
- Daniel Dăianu highlights the strong impact that the health crisis has on the Romanian economy, emphasizing the eminent risk that our country may enter again into a deep recession.

At the same time, it should be emphasized that the comparative analysis we performed was based on a rich database provided by the National Bank of Romania (BNR), the National Institute of Statistics of Romania (INS), the United Nations Conference on Trade and Development (UNCTAD).

3. Research methodology

For the creation of this paper we resorted to a qualitative research of the information provided by specialized literature and institutions.

We interpreted the evolution of economic phenomena in a personal way using the comparative, analytical, descriptive methods.

Through the investigative methods used, we wanted to highlight the existing similarities in the evolution of the Romanian economy between the period preceding the global crisis and that of the health crisis. For this we used the dynamic analysis of macroeconomic indicators.

4. Romania's inappropriate behavior in the context of the global financial crisis

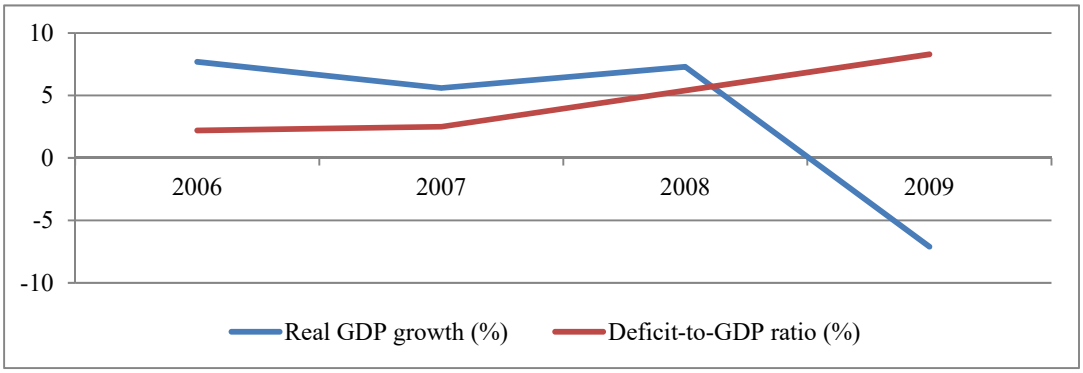
In order to highlight the impact that the global financial crisis had on Romania, we must take into account the situation of our country's economy in the period preceding the manifestation of this phenomenon.

In the 2000-2008 period, Romania's GDP increased 3.5 times, from 40.3 billion euros to 139.7 billion. GDP growth is not always reflected in an appropriate improvement in the standard of living of most citizens or the entire population of a country. In Romania, the important increase in GDP in the mentioned interval did not materialize in a satisfactory increase in the quality of life for the ordinary citizen. The human development index in Romania experienced an obviously more attenuated growth in relation to GDP's growth. In measuring the human development index, aspects related to life expectancy, education level and per capita income are taken into account.

Romania's economic growth was characterized by an entire series of deficiencies related primarily to the structural problems in the real economy. The distribution in Romania of the net national income mainly in favor of the capital and to the detriment of labor represented a reversed situation compared to the one recorded at EU level. The low level of tax collection was added to this, a situation which generated the existence of macroeconomic tensions in Romania.

By 2008, many of the world's countries had entered a financial crisis which was becoming increasingly global. In the same year, the highest decision-makers in the Romanian hierarchy were stating that our country was an island of stability or that the Romanian economy was booming. We can include these formulations in the category of political campaign slogans, being removed from the actual reality that our country was facing. Romania's misfortune was that at the end of 2008 local and parliamentary elections were held, followed by presidential elections in 2009. The imbalances accumulated by the Romanian economy, in the previous years, were deepened against the background of the globalization of the crisis which started in the United States.

Figure no. 1. The real GDP evolution (%) and the Deficit-to-GDP ratio in Romania in the 2006-2009 period



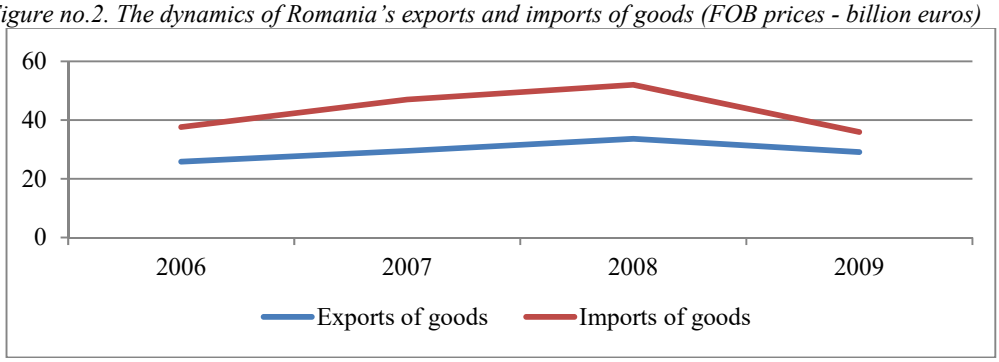
Source: NBR/National Bank of Romania's annual reports from 2006, 2007, 2008, 2009

We can notice that in Romania the annual GDP growth in the 2006-2008 period was significant, this evolution being determined to a large extent by the stimulation of consumption and the solid increase in the prices in the field of construction. The overheating of the Romanian economy had adverse effects in the first year of the global financial crisis, when our country's GDP shrank by 8.3%. By comparison, in the same year (2009), the global economy shrank by less than 2%. Romania's spectacular GDP growth in the 2006-2008 period was paradoxically doubled by an almost equally spectacular increase in the Deficit-to-GDP ratio, which in 2008 reached 5.4%, the highest value in Romania over the entire previous decade. Obviously, in 2009 this indicator fell sharply to 8.3%.

Despite the optimism displayed by the government, in 2008 the Romanian economy decreased by 0.4% in the third quarter compared to the second quarter and by 2.2% in the fourth quarter compared to the third quarter, leading to the entry of our country into recession. Practically, at the level of 2008 and even at the level of 2009, in Romania the necessary measures were not taken to

mitigate the effects of the global financial crisis in spite of all the signals in that direction from the United States.

Figure no.2. The dynamics of Romania's exports and imports of goods (FOB prices - billion euros)

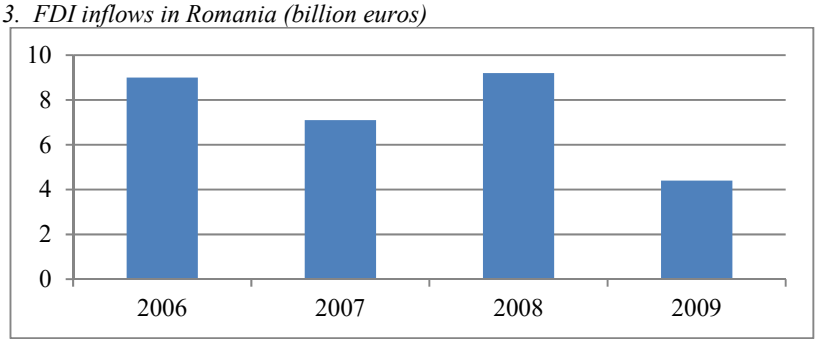


Source: NBR's annual reports from 2006, 2007, 2008, 2009

In the period preceding the crisis, both exports and imports of goods experienced considerable increases in Romania, remarking that the average annual growth rate of imports was significantly higher than the average annual growth rate of exports. As a result, there was an alarming increase in Romania's goods trade balance, which in 2008 reached 18.7 billion euros. This phenomenon, in the years before the 2008 crisis, was mainly generated by the increase in the ease with which loans were granted to the population and the introduction of the flat income tax of 16%, which led to an increase in household consumption, a consumption which was achieved to a large extent through imported goods.

Against the background of the global financial crisis, both exports and imports decreased in 2009, being noticed the pronounced decrease recorded by Romanian imports. The decrease in domestic consumption as a result of the reduction of the population's income and the tightening of the conditions required for getting a loan was the main cause which led to the strong decrease in Romania's imports. Despite the euphoria shown by Romania's decision-makers in the period preceding the global financial crisis, we must not forget the alarming values of Romania's current account deficit, whose annual share in GDP has had values of over 10%.

Figure no.3. FDI inflows in Romania (billion euros)



Source: NBR annual reports from 2006, 2007, 2008, 2009

The annual inflows of foreign direct investment attracted by Romania in the 2006-2008 period reached historical levels, being determined mainly by the privatization process. The year 2009 was characterized by a reduction to less than a half compared to the previous year of foreign direct investment inflows in Romania, the phenomenon being caused by the decrease in the privatization offer and especially by the lack of confidence that foreign investors showed with respect to the Romanian economy.

At the same time, the amount of money sent by Romanians working abroad decreased in 2009 compared to 2008 by approximately 47%.

Paradoxically, the reference interest rate increased from 9.75% in July 2008 to 10.25% in September 2008. After February 2009, the NBR gradually reduced the refinancing interest rate, which reached 6.25% in 2010. It should be noted that this indicator in most countries of the world decreased significantly reaching values close to zero. Under these conditions, the loans needed by the Romanian economy during the crisis were excessively expensive, at least in comparison with the countries in Western Europe or the United States.

It should also be noted that, according to the information provided by the NBR, Romania's debt-to-GDP ratio increased from 13.6% in 2008 to 23.7% in 2009, respectively 39.8% in 2014.

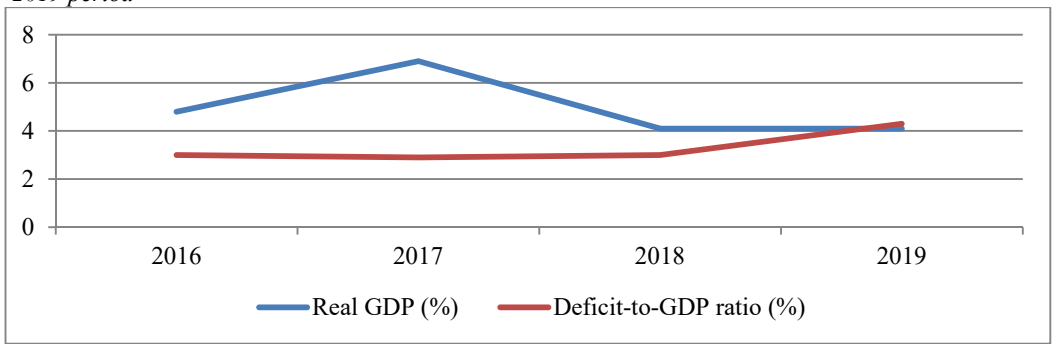
In terms of absolute values, we can see that our country's public debt has multiplied by 2.7, increasing from 107 billion lei in 2008 to 295 billion lei in 2014. Since Romania's economy has recovered with difficulty, we chose for comparison the year 2014, when Romania's GDP in current prices was at a level comparable to the one recorded in 2008. We can state that to a large extent the return of Romania's economy to the parameters recorded before the global financial crisis was realized also by the strong increase in Romania's public debt.

In 2009, Romania was undergoing a strong recession, a phenomenon deepened by the cyclical fiscal-budgetary policies promoted during the previous two decades. The situation also worsened due to the austerity policies implemented during the crisis. Thus, the hesitations in counteracting the crisis in 2008 and 2009 made Romania implement in 2010 harsh measures for the recovery of the economy, among which reducing the salaries of the public servants by 25% and increasing the share of VAT from 19% to 24 % are worth mentioning.

5. Romania - repeating the scenario in the context of the health crisis

Some measures undertaken by Romania starting from 2010 were correct, which led to the stabilization of the national economy in time. Thus, the conditions for a balanced development were created. Consequently, between July 2015 and November 2017, Romania met all the euro convergence criteria without interruption. The governments which have succeeded each other since 2017, being the expression of the results of the election held at the end of 2016, through the steps taken (some with a clearly populist character) created the conditions for the evolution of Romania's economy in the 2017-2019 period to be largely similar to the one recorded in the period before the onset of the global financial crisis.

Figure no.4. The evolution of the real GDP (%) and of the deficit-to-GDP ratio in Romania in the 2016-2019 period



Source: NBR's annual reports from 2016, 2017, 2018, 2019

Romania's GDP in the years preceding the manifestation of the health crisis in the year 2020 experienced annual growth rates clearly higher than those recorded in the EU as a whole or those recorded globally. However, the evolution of the Deficit-to-GDP ratio can be said to have been worrying, reaching a level of 4.3% in 2019.

Economic growth was mainly based on stimulating consumption, which generated a substantial increase in imports of goods in Romania. The immediate effect materialized in a trend of accentuated increase in Romania's trade deficit, which was 11.9 billion euros in 2017, 14.8 billion euros in 2018 and 17.3 billion euros in 2019. At the same time, Romania's current account deficit

had an upward trend, reaching 4.6% of GDP in 2019. Although in absolute values Romania's public debt increased, in terms of its share in GDP it stabilized at about 35% in the 2017-2019 period.

Although foreign direct investment inflows in 2018 and 2019 amounted to 5.5 billion euros, respectively 5.1 billion euros, these are at significantly lower levels compared to those recorded in the period before the global financial crisis.

The health crisis, doubled by the local elections and parliamentary elections, has made Romania's prospects for the end of 2020 worrying. Thus, it is anticipated that for the whole year 2020 there will be a decrease in Romania's GDP by 5.2% and an increase in the Deficit-to-GDP ratio to 10.3%. Among the European Union countries, Romania recorded in the first quarter of 2020 the second fastest increase in public debt, being surpassed only by Finland. Under these conditions, public debt will represent 46.7% of GDP by the end of 2020. (European Commission – Autumn 2020 Economic Forecast)

In September 2020, Romania's public debt represented 42,9% of the country's GDP, reaching 451 billion lei compared to 373 billion lei, a level reached in December 2019. (Ziarul financiar, 2020b)

It is considered that for Romania a sustainable public debt must represent between 43 and 45% of GDP. Exceeding this threshold does not necessarily lead to the impossibility of paying the debt, but it increases by 50% the risk for Romania to enter a recession as a result of a debt crisis. (Voinea et al, 2018, p.106)

In terms of the Deficit-to-GDP ratio, it could be said that the other EU countries are also recording close levels. When a state of normalcy is reached, for most EU countries less than 3% Deficit-to-GDP ratio will be relatively easy to achieve. Romania's situation in this regard will be difficult considering the perpetuity of certain budgetary expenditures generated by the increases in salaries and pensions which have been granted or are to be granted in accordance with the legal provisions in force.

Considering the statistical data regarding the evolution of Romania's economy in the period preceding the global financial crisis and in the period preceding the health crisis, we can say that there are many similarities. It is clear that, in both cases, the Romanian decision-makers did not take the necessary measures with the least anticipation so as to reduce the economic and social effects generated by the crisis. Electoral strategies, ignorance, indifference can be the reasons for the attitudes of the government representatives in Romania.

6. Conclusions

Economic crises can be more or less intense; they can occur over a longer or shorter period of time.

The frequency and intensity of the crises are strongly influenced by the measures implemented in the economy and in the society, in general by the decision-makers.

Economic development after the Second World War was generally achieved in a climate of democracy, which included free elections. It is clear that democracy is necessary and must be defended. It is also obvious that in a democracy, the decision-makers often do not take the correct measures from an economic point of view, this conduct being determined by electoral strategies. It is necessary to find an equilibrium which on the one hand will give satisfaction to the electorate, and on the other hand will lead to a rational expenditure of the public money, and thus, the appetite of the governments for unjustified expenditures must be diminished.

Despite all the troubles caused by economic crises, avoiding them altogether is an impossible goal to achieve. No matter how many measures a country may take and no matter how technologically developed it may be, it is not immune to crises. However, governments can implement certain decisions that will increase the span between two crises and lessen the effects of crises on the economy.

When a person becomes ill, he/she receives an appropriate treatment in order to return to a state of normalcy. Similarly, the onset of a crisis requires the implementation of corrective measures to heal the body called economy.

Romania's macroeconomic stability in the period since the collapse of communism has been achieved in many cases by implementing public policies characterized by austerity. The consequence of these steps was the decrease in the economic growth potential that Romania could have had in those years.

The deficiencies which characterized Romania's economic development, as well as the polarization of incomes which led to the impoverishment of a big part of the population represent phenomena accentuated by the economic crises that our country went through. The relative poverty rate in Romania is currently higher than the one recorded in 2010, which led to a decrease in the population's standard of living. The impoverishment of the population has led to an increase in school dropout, especially in rural areas. People without an adequate level of education have a diminished chance of finding an acceptable job from the perspective of ensuring a satisfactory pay level. According to Eurostat, in Romania the age group with the highest risk of poverty and social exclusion is represented by the children, the value of this indicator (38.1%) in 2018 meaning that our country ranks first in the European Union. A direct result of this state of affairs is the huge share of approximately 40% of functionally illiterate children in the total number of children in Romania. It is no coincidence that the two values mentioned in this paragraph are close to each other.

The tensions accumulated in the economy, the impoverishment of a big part of the population, the educational deficiencies and migration of a big part of the population are major issues which will influence Romania's economic and social performance, including its ability to overcome in good conditions the crises it will face.

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Globalization - Chimera, Trand or Necessity?

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Abstract

*The paper discusses the phenomenon of globalization from the perspective: * the need and quality of the process, as it is currently implemented, * the benefits and secondary aspects that accompany it and * the structural changes generated by the pandemic caused by the SARS-CoV-2 virus.*

The argumentation is based on observations, studies and statistics provided by researchers, analysts, international profile bodies.

*From the author's perspective, the activation of the latent valences available to globalization and which can relocate the phenomenon to much higher levels than currently revealed, becomes possible only if at least three elements are met: * interconnection of resources (people, information, technology), * common consciousness generated by a holistic understanding of the purpose and the optimal mode of action and * synergistic action.*

This work is defined by the author's descriptions, multidisciplinarity of information, opinions and conclusions and has the role of examining aspects of globalization that, through a slight new approach, can reach lives in a different way, closer to human potential.

Key words: interconnection, common consciousness, synergistic action.
J.E.L. classification: F62

1. Introduction

This research responds to the scientific interests of the authors, being in connection with their concerns and type of scientific training and starts from the desire to clarify the authenticity and necessity of globalization, a phenomenon whose magnitude, according to American researchers Peter H. Lindert and Jeffrey G. Wiliamson (Bâc, 2020, p.1) has evolved for more than 500 years, since his expeditions to Gama and Columbus.

That is why the research aims at three possible levels to which, possibly, globalization is aligned:

- the first level is globalization as a chimera, consisting of the good intentions of a significant number of people who aim to implement a system of trade and information exchange but who, in the presence of resistance from an archaic mentality, cannot achieve their goal,
- the second tier, frames globalization as a trend followed by groups of entrepreneurs who understand the power of market developments but practice this form of trade based mainly on intuition and less on understanding the phenomenon in terms of its advantages and disadvantages,
- the third level clearly establishes the need for globalization, regardless of the field practiced, as a sustainable strategy for the development of the company and the business environment.

The point of view of the authors is substantiated throughout the work.

The objectives of the article are:

1. the analysis of the phenomenon of globalization from the perspective of the transformation of the world into a unity that manifests itself, through specific means, at the planetary level

2. analysis of the phenomenon of globalization from the perspective of the transformation of the mental and behavioral patterns of buyers caused by the Covid 19.

2. Theoretical background

The main starting point of the research is the explanation that dexonline gives us about the terms globalization and globalization, respectively:

GLOBALIZATION is a "phenomenon of transforming the world into a unity, which manifests itself on the scale of the entire globe, through specific means" and

„TO GLOBALIZÁ means: 1. to bring together disparate elements. 2. to judge a problem, a situation, etc. overall." (dexonline.ro)

The paper does not aim to follow the lines of thought developed by other researchers and authors who have studied the phenomenon of globalization, but aims to create its own point of view, consisting of research - perennial aspects of life, as manifested in nature, - specific mechanisms once activated, it generates the most effective and efficient managerial results, -the effective mode of action of the world states and the actors involved in international trade, -structural changes generated by the development of fields of activity such as IT or transport, - financial results recorded by different states or economic branches, -new patterns of behavior formed following the SARS-CoV-2 pandemic experiment.

3. Research methodology

The authors used in order to carry out this research paper:

- ✓ quantitative methods of analysis (based on statistics such as those published by the European Commission or economic, social, political news sites)
- ✓ qualitative methods of analysis (based on measuring observed behaviors)
- ✓ comparative methods of analysis (achieved by associating the similarities of the behaviors of living beings or the way of effective implementation of the phenomenon of globalization in most structures, including in the management process)

No difficulties were encountered in collecting and selecting data and information.

4. The accuracy of globalization - perspectives and analyzes

If we carefully analyze how the terms Globalization and Globalization are defined in the explanatory dictionary of the Romanian language (see chapter Introduction), we can identify some key words, such as: transformation, unity, reunite, ensemble.

Therefore, the intention that is the guarantor of this phenomenon concerns both the whole and the parts. And not anyway, but in dynamics, in a mutually advantageous tandem. How can this duet manifest itself to its full potential? It tells us the very definition: by specific means.

Under what conditions, however, are the specific means correctly selected and applied so that globalization achieves its goal?

We know that any effect has a cause. In the case of globalization, unity - the key element of the whole process can be obtained for people, through people, because man is the one who selects the specific means that are subsequently applied so that transformation can be produced in the most appropriate way. Which means that the sustainability of the result obtained is directly dependent on the human factor.

But there is something from which man, if he looks with due attention, can learn a lot about longevity and efficiency, respectively nature. There are species on earth that have been going through the "globalization process" for thousands of years. Why can't we learn from them? Why can't we observe, analyze, extract the essentials and apply modes of action that have already proven their sustainability?

I will refer to the tree, the plant with woody trunk, perennial, which delights the eye with its woody trunk, branches with leaves and flowers, roots of various shapes, in accordance with the species of which it is part and life-generating fruits.

As Peter Wohlleben points out in The Secret Life of Trees, as you walk along the roads surrounded by forests, you can see how the trees intertwine their roots, forming a vast underground network. In fact, researchers from Germany, crossing and exploring the Hartz Mountains, came to a discovery. Yes, several trees belonging to the same species, develop a system of twigs and braids, forming a superorganism in which there are exchanges of nutrients between specimens. The transfer that seems to be a rule in the case of forests, manifested as superorganisms, is the help given to neighboring trees in case of emergency.

This mutual help reveals the true nature of trees, that of social beings who share food with suffering neighbors, going so far as to feed even competitors. But why do trees manifest like this? What are the reasons behind this type of relief action? Do trees know the principle that people have understood and apply in their own communities, namely that where there are many, power increases?

"A tree is not a forest, it cannot ensure a temperate local climate, it is in the wind and it is in the weather. Together, however, several trees can create an ecosystem that tames weather extremes, stores water and generates moisture." (Wohlleben, 2017, p. 14)

In this environment, defending each other, trees can withstand the weather, living until old age. The key is, therefore, the community assiduously defended by the forest specimens. Because otherwise, by exercising separation and caring only for themselves, many of the trees would not have a chance to become secular. But this mode of action not only causes repercussions on one's own existence, but can also generate a whole chain of disappearances with detrimental consequences on the forest crown which, drilled by the disappearance of some specimens, would allow storms to easily penetrate, knocking down other trunks.

In addition, without the protection generated by generous crowns, the forest floor, under the insistent rays of the summer sun, would dry out, with detrimental consequences for all trees.

That is why every tree becomes precious and must be kept alive and healthy, because the whole community depends on it. Thus, each specimen seems to have a deep knowledge generated by a common consciousness, which feeds its will to support and feed the sick specimens with nutrients, until they are better again. And life often causes the tree that was saved to save in turn, the once-saving tree that now needs help.

So trees not only survive, but benefit from longevity because:

1. are interconnected ("through an underground network, a system of braids and twigs that bring together several specimens of the same species") (Wohlleben, 2017, p. 15)
2. have a common understanding that allows for a subtle understanding of the purpose, beyond itself, that only a functioning ecosystem can tame weather extremes, store water and generate moisture,
3. act synergistically, feeding sick specimens with nutrients until they do better again, including feeding their competitors, if they are affected.

By analogy, returning to the stated goal of globalization, the phenomenon of transforming the world into a unit manifests itself intrinsically, if people:

1. are interconnected,
2. have a common conscience,
3. acts synergistically.

There are three minimum conditions whose total or partial applicability makes the difference between a result achieved in full or only in fractions.

But does humanity have as its real purpose transformation and unity? respectively:

- 'change of nature, character, way of being, conduct / change in equivalent quantities of one form of energy to another form of energy' = transformation

- "the appropriation of everything that constitutes an indivisible whole / cohesion, homogeneity, solidarity, union; all unitary, indivisible "= unity (dexonline.ro)

Do we have the capacity to globalize, respectively to "bring together disparate elements? To judge a problem, a situation, etc. as a whole "2? (dexonline.ro)

There is no need for a detailed analysis of this phenomenon. It is enough to inform ourselves and observe:

- on 31.01.2020, the process of withdrawal of Great Britain and Northern Ireland (UK) from the European Union, was completed (Brexit), (Ministry of Foreign Affairs, mae.ro/brexit, 12.12.2020)
- until December 2020, no agreement was reached between the Prime Minister of Great Britain and the President of the European Commission on post-Brexit bilateral relations (Hot News.ro, 12.12.2020)
- the O.N.U. has been officially notified of the "withdrawal of the U.S. from the O.M.S." (Radio Free Europe, 08.07.2020)
- the climate in the Washington-Brussels relationship is 'relatively tense'
- U.E. has decided to maintain the Nuclear Agreement with Iran; in parallel, the US denounced this agreement (PMP, 12.12.2020)

So the transformation is indeed taking place, but the unit, at the time of 2020, in the midst of the Sars-Cov-2 pandemic, the virus that causes a respiratory infection called COVID-19, continues to be a chimera.

And yet? Is globalization a necessity?

The best answers are those offered by reality itself. Thus, in 1969, a „huge step for humanity" took place, as Neil Armstrong, the man who set foot on the ground, for the first time in human history, would say.

How was such an achievement possible? What enhanced it? Was NASA the only organization that dreamed and worked to make this great dream come true?

Not. The field of space exploration was also approached by the European Launcher Development Organization (ELDO), which had similar ambitions to NASA but failed to launch the F-8 rocket two weeks before, on the other side of the Atlantic, to launch the American Apollo 11 rocket. And this was not the first ELDO failure, but the number five failure. The Europeans had tried to launch the rocket five times

F-8 and, each time, they had failed.

Why did two organizations with similar ambitions and challenges, in front of the same project, have diametrically opposed results? What led to the success of one organization and the failure of the other? Were the differences offered by the expertise? Or those generated by resources?

The answer is given by Stanley McChrystal in the book *Teamwork, New Leadership Strategies for a Complex World*. The difference was in „…the way in which organizations distributed information. NASA was, thanks to an approach known as systems management, a much more efficient organization." (McChrystal, 2016, pp. 232-233)

However, this approach also required a paradigm shift. It took as much managerial effort as technological effort. This has been possible since 1963 when George Mueller was brought to NASA, the person who brought a multitude of organizational changes and formed the managerial foundation of the Apollo program.

„His vision of NASA was that of a single interconnected mind - an emerging intelligence like the common cognition that defines extraordinary teams." (McChrystal, 2016, pp. 237-240)

Muller gave up old organizational charts and asked engineers and managers who were used to working within their own departments to communicate daily with peers from other teams and centers. Muller knew the time for organizational division was over.

Prior to Muller's arrival to lead the Apollo program, NASA headquarters obtained monthly data from the centers on the ground and had several managers check for inconsistencies. Muller, however, insisted that data analysis be done daily and data exchange be done very quickly.

Just two years after Muller arrived, Apllo has transformed from a poorly structured group of research teams into a close-knit organization.

Even the engineers, who were initially very fierce against systems management, understood that a significant part of the technical problems could only be solved on the basis of the exchange of information. „As Von Braun said, the real mechanism that makes NASA tick is ... a permanent intercommunication between the right side and the left side of the house"(McChrystal, 2016, pp. 237-240)

With this approach, in five years, a space program considered a national disgrace became the best in the world, while on the other side of the Atlantic, ELDO, which had begun with such high aspirations, had failed miserably to during the five F-8 rocket launch attempts. And this, although in 1961, „European technology and expertise were at the same level as those in the United States" (McChrystal, 2016, pp. 240-242)

According to Stanley McChrystal, the Germans developed the first military missiles. The UK is developing a program to create ground-to-air, air-to-ground, ship-to-air and air-to-air weapons. The Netherlands and Belgium contributed by providing significant resources. However, what would lead to the failure of ELDO teams was that they acted independently, with manufacturers and users rarely communicating, with each nation taking control of a different stage of the missile: Thus, Britain produced the servomotor, the second stage was produced by France, the third by Germany, Italy doing the satellite test vehicle. The teams did not have a specific place for the project documentation, they did not have a system through which other groups could access the documentation and there were no specifications of the type of documentation that each entity had the role to produce. Each teammate managed his share with the help of his own national organizations, seeking to maximize his economic benefits and often refusing to provide information.

If on the first attempt to launch the rocket, the failure came from the use of a wrong type of bolts that allowed the connection of the French and German gears, then it was generated by: * the differences between the connecting rings that were used by the Italians and Germans, * problems with the electrical interface, * ignition of the rocket's self-destruct system, even when it was on the launch pad, due to an interface failure, * the explosion that occurred after twenty seconds of flight, at what would becomes the last ELDO attempt, before the dissolution of the organization in 1974.

„Subsequent internal and external analyzes concluded that all of these problems were caused by a lack of organizational communication - devastating interface failures or warnings" (McChrystal, 2016, pp. 240-242)

So what exactly made the difference between the success and failure of the two organizations which, after all, represent two different models of approach, organization and operation? Exactly what the trees already know:

1. interconnection, not separation
2. common consciousness, not disjoint
3. synergistic actions, not independent actions

So is globalization a necessity? Definitely, yes!

5. Globalization - benefits and fireworks

What would be the benefits of such a unanimous, global approach?

- truly sustainable political, cultural and economic ties,
- open, integrated and sound savings,
- increased certainty in international relations,
- a rule-based world economic, political and security order guaranteed by supranational organizations and strong, credible and effective international institutions,
- improved market access for exporting SMEs,
- the absence of tariff, non-tariff and technical barriers on SMEs operating in various world markets, reduction of tariffs, simplification of customs procedures and, possibly, new mechanisms to promote the exchange of experience and good practice of SMEs, through sales operations and buying in world markets;
- free, fair, balanced and mutually beneficial trade (in goods, services, digital, etc.),
- fair and genuine conditions of competition,
- social progress etc.

Of course, much of the aforementioned benefits have already been achieved. Globalization exists, is being implemented and affects lives and, like any other dual form of existence, affects them for better or worse.

This paper does not question the existence of globalization, but its necessity and quality from the perspective of that phenomenon of transforming the world into a unit, which, at a theoretical level, defines it.

Referring to two simple examples, one on how the tree has proven to know how to survive and survive for centuries, another that presented the results obtained by addressing two different modes of action, based on interconnection and separation, we can he easily understands why globalization is a phenomenon not only necessary, but also with the potential for success.

The activation of the potential, however, also depends on the quality of the process. For clarification, I propose the analysis of the production and marketing of a fruit whose record has surpassed any sale of a consumer product: - avocado. This fruit, also called "green gold", whose consumption records "almost 10,000 years" (greelane.com, 13.07.2019) is cultivated in the southern part of the world, in countries such as: Mexico, South Africa, Chile and Peru. The fruit was first popularized in the 1970s in the United States. From a fruit unknown to Europeans, it has become, thanks to an open and internationally integrated economy, consumed in Europe by 65% more in 2018 compared to 2016, reaching at least 650,000 tons. In the US, annual consumption is approx. 1.1 million tonnes. (stiripesurse.ro, 28.01.2019)

And yet, before being accessible in stores, according to (libertatea.ro, 14.12.2019), the fruit called avocado dramatically upsets the lives of people who grow and export it around the world, because this fruit that generates a profit substantial:

- draws attention to organized crime cartels in provinces such as Michoacan, Mexico, which resort to military solutions, kidnappings and assassinations
- causes economic elites in countries such as Chile to use water resources in their own interest and to the detriment of ordinary people who do not have access to this resource, even in terms of daily needs. (libertatea.ro, 14.12.2019)

We can agree, together, that in such conditions, the quality of the process, at this moment, is poor. Returning to man, who manages the whole process, we can easily understand that only a profound structural change can activate the valences of the maximum potential of globalization.

However, interpreting the definition of globalization from a different perspective, we notice that the world has become a unit of production, for itself. And this is good, as indicated by the financial indicators presented below, according to which (European Commission, 2020) the trade conducted by EU27 in 2019, with non-EU countries, totaled € 1,934,944 million - import of goods and € 2,132,015 million - export of goods. So we are talking about an international trade of € 4,066,959 million that would not have had the possibility to exist at this intensity if it were not for:

- * signed agreements between states (ARM) that allowed to reduce costs and time required for product certification and facilitated the access of foreign products to international markets, - * excluded technical barriers, non-tariffs and tariffs on companies operating worldwide, - * reduced tariffs, - * created easier customs procedures, - * formed and approved springs to streamline exchanges of experience and good practices, through sale-purchase actions on world markets.

But all this is due to globalization, interpreted as a process of goodwill on the part of all parties involved, with the common goal of exchanging knowledge and goods to generate a significant improvement in processes, products and quality of life (unfortunately, as we have recognized up, not always, for all the actors involved, which confirms, once again, the applicability of the proverb: There is no forest without drylands).

Therefore, in order to be traded worldwide, the goods produced in a certain part of the world, unity is needed. The unity of the will of states to develop free, fair, balanced and mutually beneficial trade relations. The unity of statesmen's agreements in implementing trade policies that eliminate discrimination, such as against foreign suppliers, for example.

But the production and marketing of goods are increasingly linked to the services provided worldwide, the economic performance of many manufactured products depending on access to services. Today, a company with international activity can no longer be competitive without efficient telecommunications or transportation without access to banking, insurance, or accounting systems.

In addition, the development of the IT field has generated new industries and services, emerging, developed worldwide. International trade has seen new horizons and new forms with the acceleration of technological processes. Most products are no longer manufactured in a single country, but in different countries and even on different continents. Products of any kind can now be designed in any US state, manufactured in Asian countries and assembled in Europe.

Or a company can provide external services, maybe even international, using human and technological resources located at its headquarters.

Therefore, supply, manufacturing and sales chains have acquired a global dimension.

6. Globalization from the perspective of SARS-CoV-2 virus

And yet. Can there be factors independent of the human being that disrupt the phenomenon of globalization, as we know it?

Reality proves yes. There is, one of them being a pathogen called SARS-CoV-2 that causes various infectious diseases and that generated the current pandemic of COVID-19.

Why can a virus affect the world economy? Because it generates panic, and panic changes behaviors and habits.

For example, according to an EY study conducted during the pandemic period from May 13 to June 2, 2020, on a sample of almost 400 participants:

- approx. 70% of Romanians consider the quality of products and services a priority, to the detriment of the price,
- the volume of purchases increased, with the focus on local products to the detriment of imported ones,
- over 33% of respondents prefer online orders,
- over 75% of consumers estimate that they will migrate to online shopping in the next period,
- approx. 25% of those interviewed reduced their budgets for non-essential expenses such as personal care, tourism, sports or outdoor activities,
- over 64% of Romanian consumers are concerned about their own health and that of their family.

The initiators of the EY study thus confirm, through the obtained results, trends identified at global level regarding the consumers' behavior, whether we are talking about the Romanian consumer or the one from developed markets. All people show similar patterns of behavior, namely: - reduction of expenses, - saving and increasing stocks, -hibernation and consumption or - keeping calm and spending money (Financial Newspaper, 20.07.2020).

And the direct results of these patterns of behavior are not long in coming. As the INS informs us, in the period 01-09.2020, the turnover in the industry decreased overall by 9.7% compared to the similar period of 2019.

Decreases in turnover were registered in sectors such as: current goods industry (-2.2%), intermediate goods industry (-5.3%), capital goods industry (-13.3%), energy industry (-34.1%).

Only the durable goods industry registered growth (+1.0) (Financial Newspaper, 12.11.2020).

The consequence is that producers, providers, suppliers, all companies that have in their portfolio products and services from which the consumer reorients his attention, are obliged to rethink their management, marketing, communication strategies, to identify new solutions for market integration. , or even to reorient itself towards a categorical change of its own portfolio.

Creative thinking, adaptability, resilience. These are mandatory attributes of the new management style for companies that will remain relevant in the market and succeed in making the qualitative leap that the pandemic imposes on the global market. On the globalized market.

It's just that new patterns of buyer behavior are very likely to force generators of goods and services to increase the quality of the processes that constitute the phenomenon of globalization.

In this way, the world forced to change can be redefined, transcending the current experience in which the production and consumption of goods and services that ensure individual well-being are a priority. Thus, the common consciousness manifested by other species considered inferior by man, can be activated in us. By building a holistic understanding, aligned with a common goal, at the service of the whole, the parts, separate elements, can come together into a whole.

In this way, the phenomenon of globalization, as it is defined in the online DEX, will have achieved its goal.

Thus, if until now we said that "Globalization is a positive force that generates change ..." (European Commission, 2017) now we can say that Change is a positive force that generates globalization.

7. Conclusions

The results obtained from the present esearch can be summarized as follows:

1. Just as trees form a vast underground network through the interweaving of roots in order to survive the weather, so people need a network of connections, partnerships and social, commercial, informational exchanges called globalization, to ensure their sustainable sustainability;
2. Just as trees help each other when some get sick, so do people, providing other people, sometimes from other parts of the globe, with life-saving products, ensuring them a better quality of life, or even survival;
3. Existing misunderstandings at the interstate level directly affect the implementation of integrated trade mechanisms (see Brexit and the adverse consequences of a split-up decision);
4. The way in which organizations distributed information, constituting a single interconnected mind, made the difference between NASA and ELDO, only the first institution managed to allow man to set foot on the lunar soil. In the same register, only a flow of information, knowledge and goods can guarantee a balanced development worldwide (a negative example in this respect is China which, in full economic development, isolated itself from the rest of the world, building a great Chinese wall that short-circuited its access to evolution, for a long time);
5. The fair implementation of globalization, a well-intentioned process, but not at all easy to apply in conditions of mutual equity, is dependent on each person involved in the process;
6. Consumer behavior has changed by experiencing this pandemic period; globalization will be able to maintain its upward trend only in conditions of adaptability and resilience to the new.

The research and results obtained by the authors of the article represent only one perspective from the multiverse of perspectives that characterize this process. That is why, through the generosity offered by the approached subject, it remains open to new understandings and approaches that both the current developers and the general public, thematic interest, can develop in the near future.

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Intercultural Mirrors. Cultural Identity

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Abstract

Cultural identity is a complex concept which incorporates the aspects of identity that derive from a person's characteristic linguistic, religious, ethnic, racial and national identity. The purpose of this article is to illustrate the use of an activity for teaching the concept of cultural identity to graduate students at the Ovidius University of Constanta who study English as a second language (ESL). First, the importance of in-depth development of intercultural communication skills for ESL learners is presented. Next, the article describes the research methodology, and the stages of the intercultural communication teaching activity are also presented. Third, the results of the survey which is part of the activity are shown and discussed. Finally, the conclusion of the article presents the advantages of including such didactic activities in ESL classes instead of icebreakers for graduate students.

Key words: intercultural communication, cultural identity, nationality
J.E.L. classification: Z13

1. Introduction

In his seminal study, Edward T. Hall, who is largely considered to be the one of the founders of the academic discipline Intercultural Communication, considers cultural identity responsible for many separations which continue to exist in the modern world. Hall warned that in America there is still racial discrimination and ethnic discrimination while class discrimination can be encountered in Europe (Hall, 1976, p. 231). Therefore, it is important that cultural identity activities are included in ESL classes in order to allow the students to acquire and in-depth understanding of the different inequalities perpetuated through cultural patterns.

2. Theoretical background

Cultural identity has multiple forms. It can manifest itself as gender identity, sexual identity, generational (age) identity, racial and ethnic identity, religious identity, class identity, national identity, regional identity, etc. (Coroban 2020, p. 49). In Baudrillard's conception, identity is a construct, it does not exist by itself outside a socio-historical-political context. According to the Oxford Reference dictionary, national identity refers to the public image of an imagined community (Oxford Reference 2020).

The activity proposed in this paper deals with national identity, more specifically, it evaluates Romanian students reaction to the way Romanian culture is illustrated in a short documentary video on various personalities of Romanian culture posted by the Romanian Cultural Institute in London on social platforms and by its author on online streaming platforms. In the UK normative identity (that which society considers normal) has manifested itself quite strongly during the BREXIT campaign and there have even been racial hatred attacks on different groups (BBC 2019).

3. Research methodology

The methodology used in this paper includes critical didactic incidents and the quantitative and qualitative analysis of reactions to the short documentary on Romanian culture called *Nicolae Grigorescu | Who Is Romania with Dr Tessa Dunlop | Episode 4*. Critical incidents are short descriptions of situations where intercultural conflict appears (Apedaile and Schill, 2008, p. 7).

By quantitative analysis we refer to assessment of a survey in Google Forms that was sent to the students after the activity and the plotting of graphs in Excel, while quantitative analysis includes a review of the student's spoken reactions to the documentary as well as comments from the online streaming platform where the video is hosted.

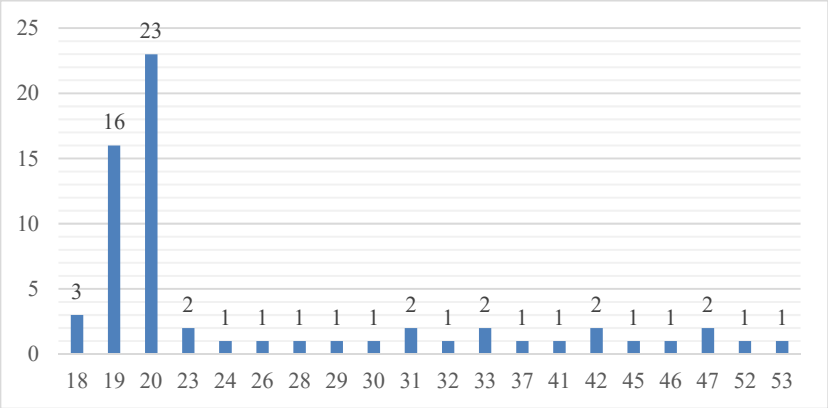
The plan of the proposed activity is given below:

- Make sure to briefly introduce the participants to the concept of cultural identity. This could be done by pointing out how, for instance, when studying English as a second language, they often have to read about British personalities or different aspects of British culture. The learner's curiosity could be elicited by presenting the activity as an example of how the British get to learn about Romanian culture.
- The instructor lets the students know that a critical incident will follow by telling them that next they will have to watch a short video documentary and afterwards they will have to evaluate certain statements regarding what they had seen.
- The instructor plays the video and shares it with the learners or send them a link of the video on the online platform so they can watch it individually. It is better if the teacher can share the video himself.
- After the video has finished playing ask the students whether they enjoyed the documentary, which part of it they liked most, etc. in order to keep them active for the next part of the activity.
- Send the link to the survey to the learners and tell them that they will have to appreciate each statement on a scale from 1 to 5 (Likert scale), where 1 stands for Totally disagree, 2 stands for Mostly disagree, 3 stands for Neutral, 4 stands for Mostly agree and 5 stands for Totally agree. For the video that we have chosen we propose these statements: 1. The documentary portrays our culture in a positive manner, 2. It is very good that the English get to hear about Romanian personalities, 3. It is very good that the English get to hear about European personalities, 4. I appreciate the presenter's effort in pronouncing Romanian words, 5. The documentary illustrates Romanian culture in a manner close to the truth, and 6. I declare myself pleasantly surprised after watching this short documentary.
- After the participants have taken the survey thank them for being part of the activity and assure them that no personal details were stored and that they will be shown the results of the survey during the next class. It is recommended that the instructor uses the same activity with more than one of his learning groups in order to get over 50 answers. Remind the learners that you will only use the results of the survey for scientific purposes.

4. Findings

The questionnaire was applied to 64 health sciences students from the Ovidius University of Constanta. Their age varied from 18 to 53, but most of the students (60.9 % of the total number) were either 19 or 20-year-olds (Figure 1). The fact that most of the participants were very young makes us expect a certain reticence towards representation(s) of Romanian national culture. In a 2018 national psychosociological study by the Friedrich Ebert Foundation it was revealed that most Romanian youth, both male and female, would prefer to spend their free time with their friends or listening to music (in the urban areas) or to spend time with their families (in rural areas) (Badescu et al, 2019, p. 50) rather than pursue an activity pertaining to high culture. According to Stijn Daenekindt, high culture is understood as referring to the visual arts, opera, classical music, and literature (Daenekindt, 2018, p. 1).

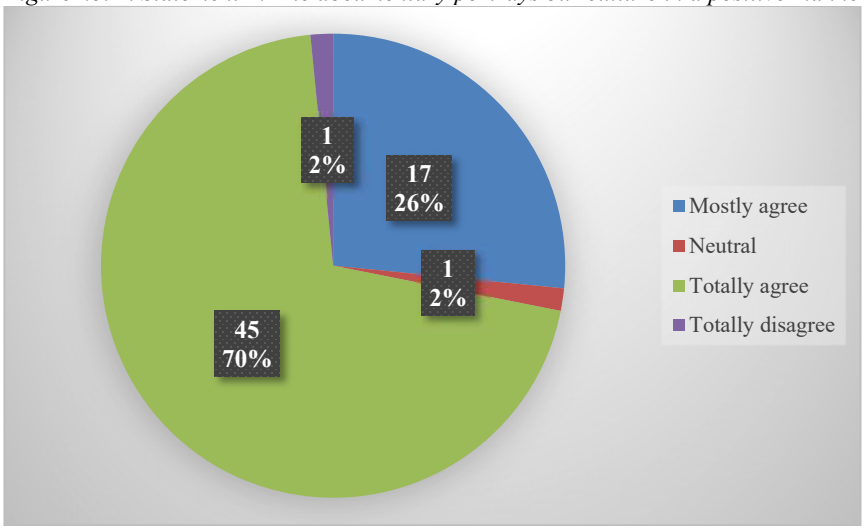
Figure no. 1. Age of the participants in the survey.



Source: Author's own work in Google Forms and Microsoft Excel.

The role of the first statement that the participants were asked to evaluate on a Likert scale from one to five (totally disagree, mostly disagree, neutral, mostly agree, totally agree) was to find out where the students positively or negatively appreciate the way Romanian culture was represented. In this case, the short documentary illustrated the life of the Romanian painter Nicolae Grigorescu (1838-1907), the founder of Romanian modern painting. 96 % of the participants answered either mostly agree or totally agree (Figure 2), which demonstrates a largely positive impact of this short British documentary on the mostly young Romanian watchers.

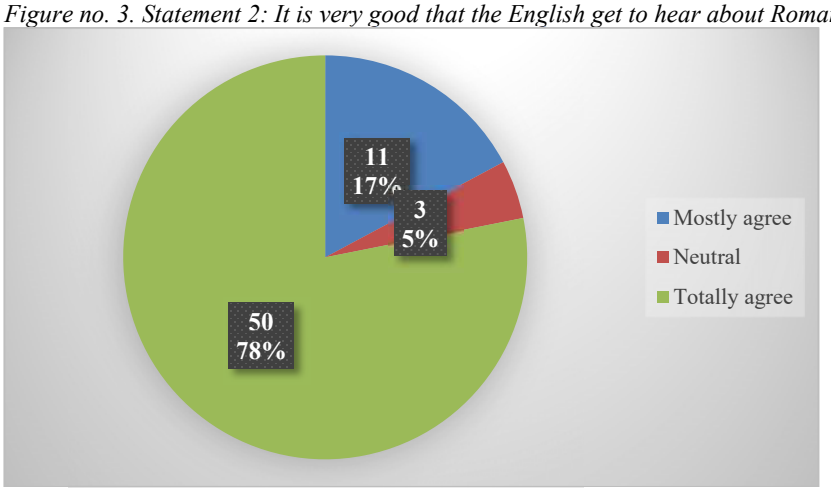
Figure no. 2. Statement 1: The documentary portrays our culture in a positive manner.



Source: Author's own work in Google Forms and Microsoft Excel.

With the second statement we aimed to determine to what extent the students consider that the British public ought to be informed more often about Romanian personalities (Figure 3). This question was posed in the context of a discussion where the learners acknowledged that, as part of the process of learning English as a Second Language, they often had to read about British personalities or various elements of British culture. 95 % of the respondents agreed to the statement either totally or to a great extent, and only three (5 %) of them gave a neutral answer, which indicates a humbler view towards their own culture, i.e. they did not feel the need to assert their national identity.

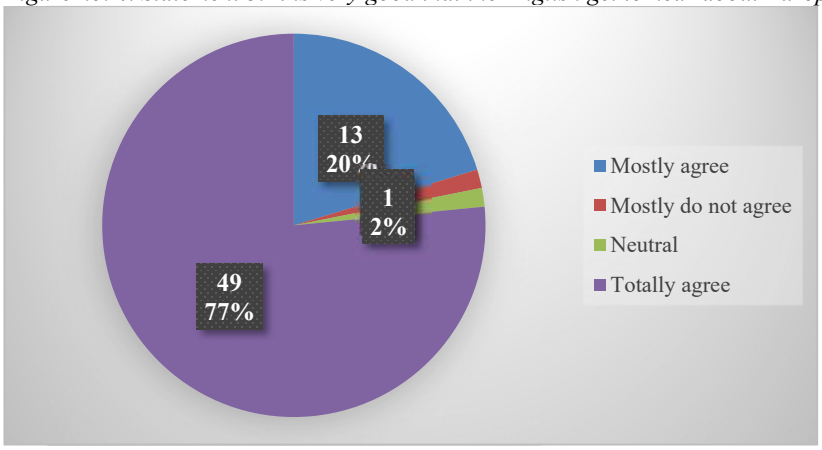
Figure no. 3. Statement 2: It is very good that the English get to hear about Romanian personalities.



Source: Author's own work in Google Forms and Microsoft Excel.

We intended to investigate to what extent the students positively appreciated the statement *The British public should learn more about European personalities* (Figure 4) in order to compare this to the answers to the previous statement. The purpose of replacing Romanian personalities with European personalities in the questionnaire was to attempt to understand the difference between the way young Romanian students assert their national identity versus how they proclaim their European identity in the post-Brexit climate. A research expectation would be that Romanians would not shy away from affirming their European identity, given the fact that, among the European Union members, according to an Eurobarometer survey, Romania ranks 10th in the population's positive expectations towards the future of the EU, with a score of 69 % optimistic prospects (Euronews 2019). Overall, the participant's reaction to this statement was slightly more positive than to the previous one (97 %), a result which corroborates our assumption.

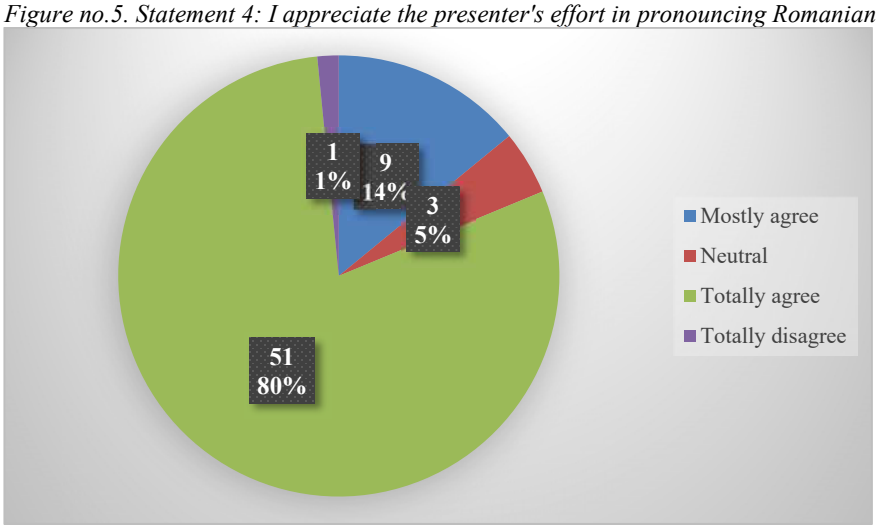
Figure no. 4. Statement 3. It is very good that the English get to hear about European personalities.



Source: Author's own work in Google Forms and Microsoft Excel.

The purpose of the fourth statement (Figure 5) was to assess the learner's reaction to the difficulties faced by the British documentary host when pronouncing some Romanian names and phrases such as Nicolae Grigorescu, Barbu Ştirbei, Doamne fereşte!, Mihai scăpând stindardul or Atacul de la Smârdan. We would expect the students to meet the presenter's effort with surprise and appreciation, given the fact that this choice of names and phrases are not the easiest ones to pronounce for someone who has not had contact with the Romanian language before. This supposition is mostly confirmed as 94 % of the respondents greatly appreciated the documentary hosts' pronunciation, while three people gave a neutral answer, and one person gave a negative appreciation.

Figure no.5. Statement 4: I appreciate the presenter's effort in pronouncing Romanian words.

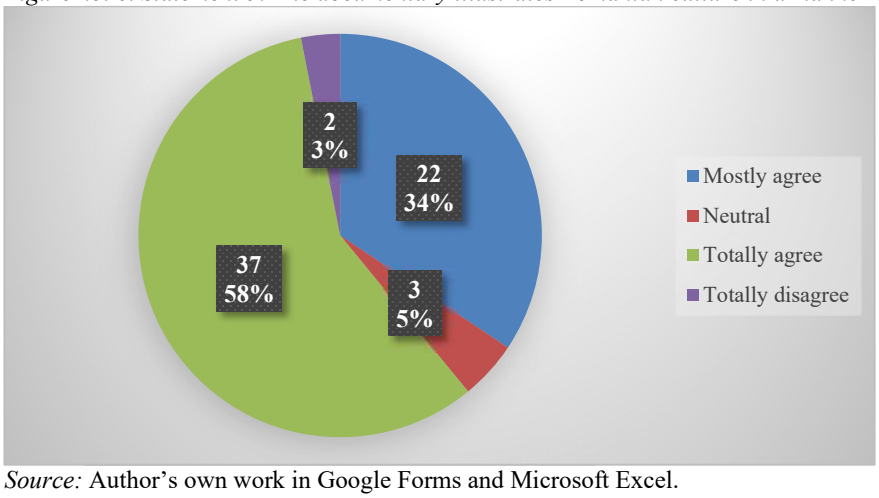


Source: Author's own work in Google Forms and Microsoft Excel.

With the fifth statement the intention was to challenge the participant to decide whether the way Romanian culture is illustrated in the short documentary matches his/her own representation of his/her own national culture (Figure 6). Similarly, in the article *Representation and Reality in the Study of Culture*, Bowling and Stromberg pose the question whether every attempt to understand the speech of the Other are blocked by cultural differences and differences in belief (Bowling and Stromberg, 1997, p. 123). The challenging part of this statements consists in the fact that each person has the tendency to view his own culture (in-group) in a subjective manner and it is very difficult for somebody outside that culture (out-group) to perceive it in a similar manner.

We hypothesize that since the depiction of Romanian culture is largely positive in the documentary (with a few negative remarks such as Nicolae Grigorescu's disappointment with the Romanian political class and the need for him to study and accomplish himself in Paris), this will correlate mostly positively with the student's reaction. The results show that only three students expressed neutrality to the statement and two did not agree to it. Still, in the case of this statement less students answered Totally agree in comparison with other statements, which is probably an indicator of the difficulty of deciding whether a cultural representation can actually be compared to what each individual consider to be his true national cultural. Indeed, cultural representation(s) can hardly be evaluated as either true or false.

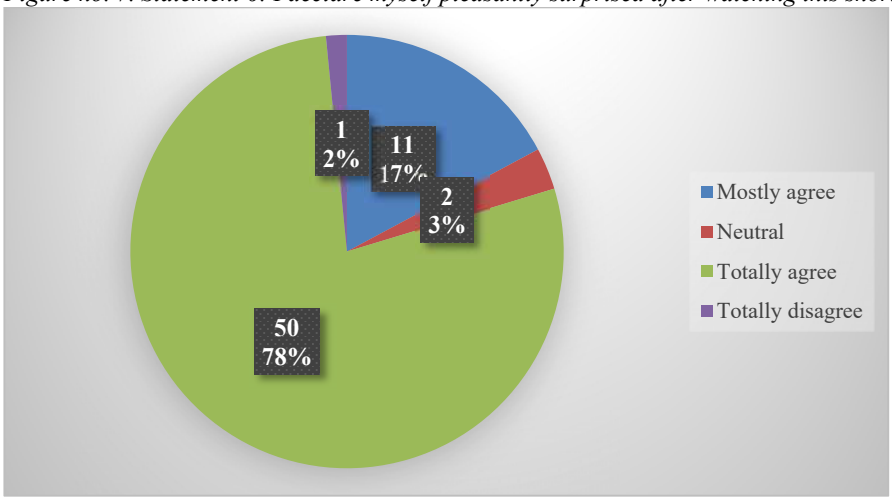
Figure no. 6. Statement 5: The documentary illustrates Romanian culture in a manner close to the truth.



Source: Author's own work in Google Forms and Microsoft Excel.

Finally, statement six aimed to measure the participant's overall reaction to watching the documentary (Figure 7). The result was highly positive, with 78 % of the learners totally agreeing to the statement and 17 % mostly agreeing. On the whole, most of the students considered themselves pleasantly surprised after seeing how Nicolae Grigorescu is portrayed as one of the most important Romanian and European painters in Dr. Tessa Dunlop's series *Who is Romania?*. This corroborates with the reactions to the documentary on the on-line streaming platform where it is available, where Romanian users left comments such as *You're doing a great job, please keep on doing it*!, or *Mulțumesc mult pentru aceste video, sunt o româncă care trăiește departe de țara ei de inimă și aceste video mă rememorează ce minunată este patria mea* [Thank you so much for this video, I am a Romanian living away from her heart's country and this video reminds me how wonderful my fatherland is], or *Bravo Tessa ! Salutări din...Scotland!!! From Bathgate with love* [Well done, Tessa! Greetings from…Scotland!!!].

Figure no. 7. Statement 6: I declare myself pleasantly surprised after watching this short documentary.



Source: Author's own work in Google Forms and Microsoft Excel.

5. Conclusions

The purpose of this brief study titled *Intercultural mirrors* was to analyze the reactions of Romanian graduate students in the ESL class to representation(s) of the Romanian culture (in this case, a short British documentary film by Dr. Tessa Dunlop on the great achievements of the modernist painter Nicolae Grigorescu). The main hypothesis was that although the participants were surprised by how the British portray a part of Romanian culture, they would not view their national culture in an extremely positive manner since they are very young adults, who according to recent psychosociological studies, would prefer to spend their free time with their friends and family or engaging in activities related to popular culture. The findings prove that the learners appreciated the representation of their own culture in a positive manner to a great extent. Our explanation for this results is the fact that the construction of self-identity is stronger in a context where comparison is made possible through the definition of oneself in relation to the Other. Likewise, according to Schalk, acknowledging the existence of the Other allows one to recognize himself/herself and is an important part of how modern people build their own identity (Schalk, 2011, p. 197),

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Effects of the COVID-19 Pandemic on the European Business Environment – Romania Case Study

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Abstract

The impact of the COVID-19 pandemic on the economy is multidimensional, affecting, among other things, supply chains, human resources or companies' revenues. Although this impact differs, from one economic sector to another, however, similar business responses to the crisis can be identified, especially in the case of SMEs. In this context, the present paper analyzes the effects of the COVID-19 pandemic on the European business environment in general and on the Romanian one in particular, as well as the measures adopted in response to them.

Key words: COVID-19 pandemic, crisis, business environment, SME
J.E.L. classification: H12, L26, L38

1. Introduction

Coronavirus has shaken the foundations of the entire world, challenging the health and social protection systems, the economies, and the way people live and work together. Without being an exception, the European Union has faced a public health problem that has quickly become the worst economic crisis it has ever experienced.

Of course, the virus as a threat is the same in all the Member States, but its impact and the recovery potential differs between them. However, each state has supported, as far as possible, its workers and enterprises, but not all to the same extent, that is why there is the risk of an unbalanced recovery, unfair competition and deepening disparities in the business environment.

2. Theoretical background

In defining their development plans, corporate executives must take into account four major forces that are transforming the global business landscape: globalization and the emergence of a new type of regionalization; accelerating global competition in technology; aging demographics and the race against climate change, as shown in an Ernst and Young Report (2020a). The COVID-19 pandemic does not fundamentally change the architecture of the effective geopolitical risk management, but will accelerate the trajectory of each of these trends.

The current crisis, generated by the COVID19 pandemic, does not resemble any of the crises the economies have faced so far, as it is disruptive and evolving, and many of the effects and discrepancies it generates will continue to materialize in an unexpected way or which was not anticipate (Ernst and Young, 2020b)

All the restrictions imposed by national authorities to limit the spread of the virus have led to a slowdown and, in some cases, almost to the cessation of economic activity. Supply chains and production lines were disrupted, as well was the trade in goods and services. Household spending and private investment have plummeted to an all-time low. The world economy and most of its

industrial ecosystems have functioned far below their capacity. (European Commission, 2020)

The economic impact of the current crisis differed, however, from one economic sector to another, with businesses that provided services involving physical contact with customers or where jobs and customer meetings were crowded being were most severely affected. Also, the impact also depended on the demographic and economic structure of each country, as for example, those with a large number of small and medium-sized enterprises (SMEs) were more affected. (OECD, 2020a)

In this context, business leaders focused on managing the immediate effects of COVID-19 on supply chains, revenues and profitability. At the same time, they had to rethink their capital allocations and mergers and acquisitions (M&A) plans for the post-crisis period, according to an Ernst and Young barometer (2020c). With the need to respond urgently to the unprecedented effects of COVID-19 globally, the top priorities of company leaders have become employee welfare and job preservation.

From a strategic point of view, over a longer period of time, the COVID 19 crisis will bring about a change in the way business is conducted. Supply chains based on major suppliers located in a single country (eg China) will be rethought. The risks of supply and the entire business disruption are too high to offset the lower costs initially charged. The impact of technology will be major not only to redefine the way companies communicate, but also to implement more agile, flexible and resilient processes. Human capital remains the hardest hit in this pandemic, and it is essential that business and political leaders work together to maintain people's health and financial stability. (OECD, 2020b)

The pandemic and its impact on business environment have highlighted the importance of digitalization in all sectors of activity. Technology and innovation have proven to be an important key to business survival and success. Both short-term and long-term solutions to the situation caused by COVID-19 will depend on technology, all the more so as the rapid escalation of online social and professional activity has created a more vulnerable environment for disinformation campaigns and cyberattacks. The economic and national security implications of these changes and challenges will accelerate and intensify the geopolitical nature of technological competition. (OECD, 2020c)

3. Research methodology

This paper analyzes the information collected following the most significant opinion polls conducted among representatives of the Romanian business environment since March 2021 in order to assess the impact of the crisis generated by the COVID-19 pandemic on Romanian companies and their reaction to it.

4. Results

The COVID-19 pandemic has severely affected the European business environment, but especially small and medium-sized enterprises (SMEs) across the European Union. The economic stalemate and quarantine have led to severe declines in revenues, which have led many SMEs to or on the verge of survival, shows a study conducted by the Department of Economics, Law and Sociology of the Romanian Academy (2020). On average, at EU level about 90% of SMEs have been economically affected, mostly services (60% -70%), construction and industry (40% -75%). About 30% of all European SMEs report that they have suffered 80% loss of turnover, compared to an EU average of about 50%. (European Commission, 2020)

Since the beginning of the pandemic, EU Member States have taken unprecedented measures to protect people's lives and livelihoods. An inventory of support measures for SMEs underlines that these measures mainly consisted of the partial coverage of the salaries of companies with suspended activity, postponements of credit rates, stimulating loans for investments and liquidity by subsidizing interest and simplifying access procedures, setting up online platforms to facilitate access to information and procedures.

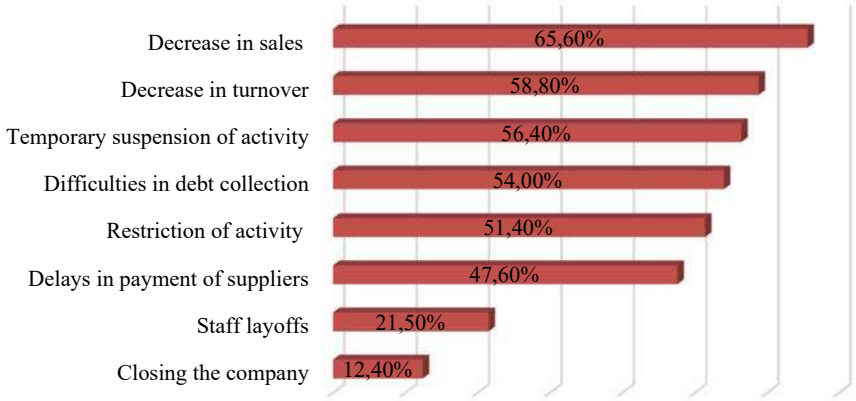
The EU has supported national efforts to mitigate the economic impact of this crisis, proposing, for example, the establishment of SURE, a new tool to help citizens keep their jobs. This initiative is only part of the package of immediate response measures, amounting to EUR 5 hundred billion, made available by the EU to support Member States' workers, small businesses and economies. In total, the European Recovery Plan proposed by the European Commission in May 2020 will

contribute EUR 1.85 trillion to the restart of the European economy and will ensure the relaunch of Europe. (European Commission, 2020a)

The situation of SMEs in Romania is far from the European level, where they provide and occupy more than 2/3 of private sector jobs and contribute more than half of the value added at national level. With about 30 SMEs per 1,000 inhabitants, Romania ranks last in Europe, where the average is about 60 ‰. (European Commission, 2019) The impact of COVID-9 also strongly affected this sector, as in January 2020 6,897 companies were registered, in February - 11,314, and in March - 6,023 companies according with National Institute of Statistics.

A survey conducted by the National Council of Small and Medium Sized Private Enterprises in Romania in March 2020 showed that 98.6% of the SMEs declared themselves as being affected by the pandemic. Among the main effects mentioned are: decrease in sales (65.6%), decrease in turnover (58,8%), temporary suspension of activity (56.4%), difficulties in debt collection (54%), restriction of activity (51.4%).

Chart no. 1 Immediate effects of COVID-19 pandemic on Romanian SMEs



Source: (National Council of Small and Medium Sized Private Enterprises in Romania, 2020)

Also, according to a HR Barometer study, conducted by PwC Romania at the end of March this year, 37% of the surveyed companies totally or partially stopped their activity after declaring a state of emergency due to the Coronavirus and 20% have restricted their activity. (PricewaterhouseCoopers Romania, 2020)

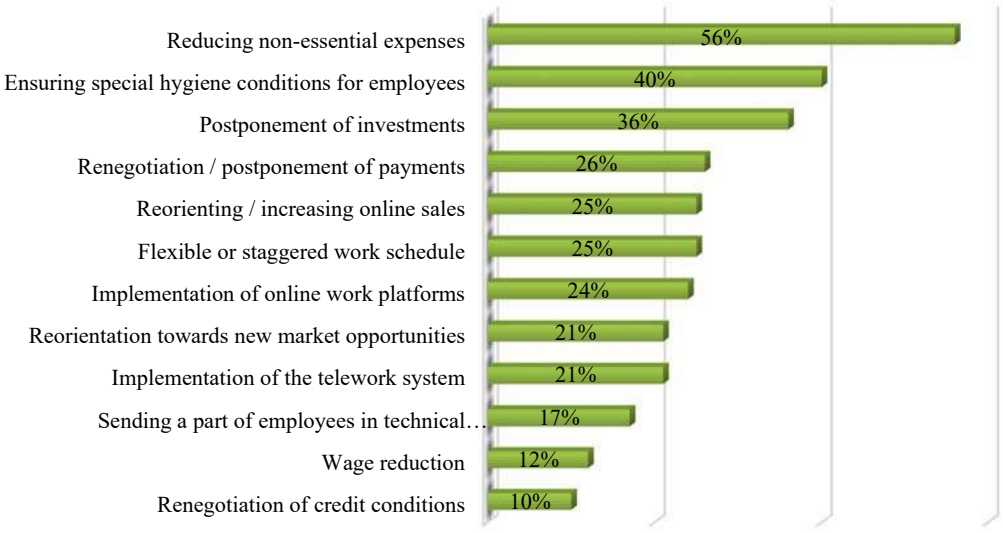
Unfortunately, in these conditions, as shown by the results of a barometer conducted by the consulting company Frames to order FACTORY 4.0 conference also in March 2020, most Romanian companies (72% of the 300 companies surveyed) do not have a risk strategy for situations such as the coronavirus pandemic. (https://framesmedia.ro/blog/efectele-coronavirusului-peste-70-dintre-companii-nu-au-o-strategie-pentru-astfel-de-situatii/).

At the end of April 2020, the MKOR consulting research agency launched a study conducted on Romanian companies, which illustrates how the impact of COVID-19 is felt in the Romanian Business Environment. According to the study, 91% of companies feel affected by the Coronavirus pandemic, with an average total impact of -10.2% by 2020. The average impact estimated by a typical organization is 100,000 Euros, with up to 100% of turnover. (Market Opportunity Research Consulting, 2020)

Microenterprises tend to be most affected by the effects of the COVID-19 pandemic. However, they are less sensitive to the effects of staff unavailability, probably due to the fact that these organizations tend to have very few employees.

95% of companies took measures to survive the crisis caused by COVID-19, and 90% took them immediately after the start of the emergency. The study shows that the most common are financial measures, which protect cash flow in the short and medium term, followed by measures to protect employees and measures to pivot the business.

Chart no. 2 Measures taken by companies to survive the crisis caused by COVID-19



Source: (Market Opportunity Research Consulting, 2020)

According to the same study, representatives of the business environment have a low level of trust, of only 2.7 points out of 7 compared to state institutions. Thus, the authorities must prove to the business community that it can manage the current crisis through a strategic approach, through which to secure itself for the private environment, on the one hand through tax exemptions and, on the other, through investment support.

The second wave of the COVID pandemic and the new restrictions imposed by the authorities have affected the Romanian economy even more strongly, mainly the SME sector, where financial problems have worsened. 58% of company representatives, surveyed in the November's Sierra Quadrant barometer, say they still have funds available for only 1-2 months. November brought, unfortunately, an accentuation of the problems in the Romanian economy, against the background of the difficulties generated by the pandemic. Decreased sales, increased financial bottlenecks and, in general, the contraction in business and consumption, have significantly influenced the finances of companies, especially small and medium-sized ones, show the conclusions of the new Sierra Quadrant barometer. According to the results of the research, most of the investors reached the bottom of the bag. (https://www.sierraquadrant.ro/barometru-sierra-quadrant-58-dintre-imm-uri-mai-au-bani-de-supravietuire-pentru-1-2-luni)

Asked about the current financial situation, 58% of respondents indicated that they have funds available for 1-2 months. 22% estimate that the money in the company reaches them for 2-4 months, 8% do not have liquidity and only 12% have financing available for a period longer than 4 months.

According to the second edition of the Moneycorp Barometer on the state of the economy, conducted between December 1-8, the perception of the business environment generally shows a moderate optimism regarding the economic evolution of 2021. The return will be asymmetric. On the list of sectors that will register a significant advance are mainly those that have performed in the lockdown generated by the pandemic, such as online commerce, courier services, construction, or electro-retail sector. (https://framesmedia.ro/blog/barometrul-moneycorp-impactul-covid-in-2020-si-asteptarile-economice-pentru-2021/)

According to the results of the barometer, in the conditions of moderate optimism regarding the economic outlook, most companies (61%) expect that it will not reach the level of turnover in 2019 until 2022. 15% estimate that they will recover in 2021 the turnover from 2020, while 23% estimate that business, in 2021, will follow a stable trend, not being influenced by the effects of the pandemic (generally companies that have benefited from the pandemic).

5. Conclusions

The pandemic highlighted the interdependence of the economies of the EU member states and the value of a fully functioning single market.

Currently, European companies in general and Romanian ones in particular are focusing on business continuity, but they must also monitor the situation and assess the risk of their employees' exposure to the new coronavirus and the effects on their entire value chain. Companies should start thinking about the next step, which is to resume or return to a normal level of activity. Thus, the adjustment of plans for 2021 must start from the reassessment of market conditions and long-term implications. Active management of financing lines, release of additional amounts from the balance sheet, in general rebalancing costs based on revised revenue forecasts, along with reconsideration of investments will best help companies, no matter how long the epidemic lasts.

Unlocking money from non-core business assets (land, warehouses, commercial spaces, vehicles or equipment for secondary functions), avoiding non-business expenses along with analyzing customer performance, from bad payers to unprofitable ones, it must also be in the focus of managers, regardless of the field of activity.

Last but not least, the current crisis has emphasized the need and value of a coordinate European response in times of crisis, and in this direction, there is still much to be done.

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Development of Strategic Directions of Road Transport for the Republic of Moldova in the Context of European Union

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Abstract

The key principles underlying the acquis communautaire in the field of transport identify the progress made and the delays that the Republic of Moldova still has in terms of convergence towards European transport standards.

The correlation between increased road traffic and health risks continues to grow. The problem cannot be solved by a single measure or public policy, but an integrated approach is needed to reduce the negative effects of road transport, harmful gas emissions and noise, as well as road accidents, the number of which is constantly increasing. This problem is also very current for the Republic of Moldova, where over 200 thousand transport units are registered annually, the transport arteries remaining the same.

Key words: road safety, national economy, international mobility, integrated management, national strategy.
J.E.L. classification: R41

1. Introduction

It is recognized that transport and energy are vital areas for the European Union's economy. Citizens and goods are transported across the continent by all modes of transport, but especially by road. In order to streamline road traffic and improve the quality of the environment, the EU encourages its citizens to travel by public transport and recommends that transport companies use trains, boats and ships to transport goods. Fast, efficient and cheap transport of people and goods is a central element of the European Union's policies and strategies. The steady increase in mobility in Europe is putting strong pressure on transport systems. As a result, road traffic congestion often occurs, reducing the quality of transport, its efficiency and safety, increasing fuel consumption and exacerbating the phenomenon of pollution (increasing CO2 emissions).

Transport is a fundamental sector of the economy. It embraces a complex network of around 1.2 million private and public companies in the European Union, employing around 10.5 million people and providing goods and services to EU citizens and businesses, including its trading partners.

Transport also ensures the mobility of Europeans, thus significantly contributing to the free movement of people in the internal market. Efficient transport services and infrastructure are vital for exploiting the strengths of all regions of the European Union, for supporting the growing internal market and for enabling economic and social cohesion. These factors influence trade competitiveness, as the availability, price and quality of transport services have strong implications for production processes and the choice of trade partners.

With such an important role, transport is, by definition, intertwined with various policy areas, such as environmental and social policies. The main challenges for the EU transport sector include creating a single, functional European transport area, connecting Europe with modern, multimodal

and secure transport infrastructure networks and moving to low-emission mobility, which also means reducing other negative transport externalities. From a social perspective, accessibility, reliability and affordability of transport are essential. However, this was not generally achieved.

2. Literature review

The European Commission aims to address the shortcomings, in particular with regard to the integration of the road transport market, through a set of initiatives for a fair social transition to clean, competitive and connected mobility, set out in its Low Mobility Strategy (adopted in July 2016) and subsequently in its Communication "Europe on the move" of 31 May 2017. This Communication accompanies a number of legislative proposals (called the "mobility package"), revising the rules on access to the road transport market, improving social legislation for road and revision of road charging rules. On 8 November 2017, the European Commission adopted a second set of proposals ("second wave of the mobility package"). They respond to the challenge of making mobility clean, competitive and connected through a combination of demand and supply measures on low-emission mobility. They combine a favorable regulatory framework with actions to mobilize financial resources, where necessary, while ensuring consumer acceptance and protecting the dimensions of social protection and employment. In concrete terms, the proposals include a number of measures to enable a transition to low and zero emission mobility, such as a reform of the Clean Vehicles Directive or a continuation of the action plan for the Alternative Fuels Directive.

Integrated management is a concept successfully used in the Member States of the European Union and aims to coordinate and cooperate with institutions, authorities and specialized services in order to achieve and achieve the objectives set in the field of road safety (Figure no. 1).

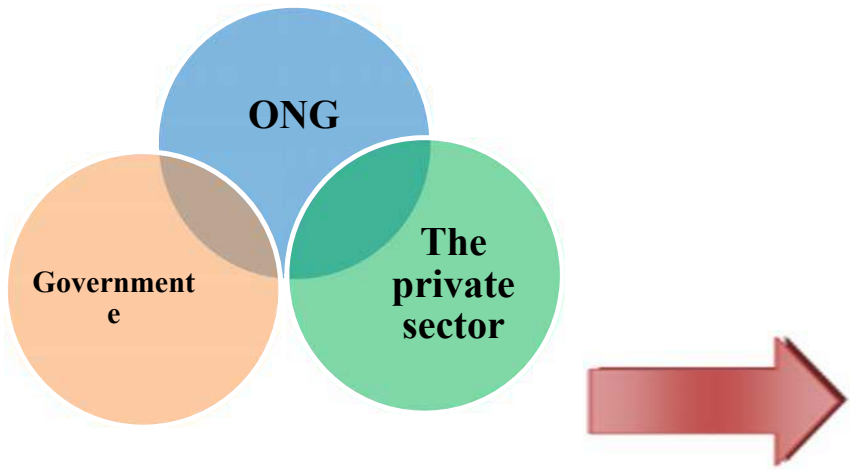
Road safety and security is a social issue of major importance for future strategy papers on transport policies, with the reduction of injuries being a remarkable goal for civil society and companies.

In the context of the current road situation in the Republic of Moldova, we will draw some important aspects in the field subject to scientific research.

Firstly**,** road safety is an issue of global interest for all actors with direct and indirect responsibilities in the field of road safety and security, but also for all citizens, whether they are drivers or as various participants in road safety. road traffic, each of them have the opportunity to contribute collectively and individually to a safer road.

Secondly, we note the existence in this regard of European documents and such as the National Strategy for Road Safety in the Republic of Moldova for the period 2011-2020 and Commission Recommendation 2004/345 / EC on the application of rules in the field of road safety.

Figure no. 1. Relations of public actors aimed at improving road safety



IMPROVEMENT
ROAD SAFETY

Source: developed by the authors

Thirdly, road safety policies need to be built as factors for action, making citizens more accountable.

Fourthly, the development of a flexible collaboration between EU countries and the European Commission, in order to implement the European Union's policy "in the field of road safety and to monitor progress in this endeavor, will include their development of national safety strategies and plans. which will be made public and which will contain the description of the means had in order to achieve the common objective "and to establish a calendar of actions in this respect.

Fifth, all Member States face the same road safety problems, with the main causes of accidents being clearly defined: excessive and improper speed, the cause of about a third of fatal and serious accidents, but also an important factor in determining the severity of injuries. ; alcohol, drug or fatigue. Statistics show that a high seat belt use rate internationally can save more than 7,000 lives each year. From this point of view, the benchmarket is a solution to put into practice the best solution identified by one country or another.

Finally, I believe that an integrated road safety management is able to capture the complexity and contextuality of the road phenomenon for its understanding through road safety. The decision I opted for in choosing this scientific research topic derived from a series of aspects related, on the one hand, to the interest of developing my training in this important field and, on the other hand, to aspects related to the challenges offered. the difficulty of managing new issues as efficiently as possible, characterized by excessive mobility of people, the emergence of a new range of risks and threats at national, regional and global level on road safety and security and, last but not least, the increase of transnational field.

All these aspects, but also others, determine complex, integrated approaches and require effective actions in what we can call a new culture of mobility.

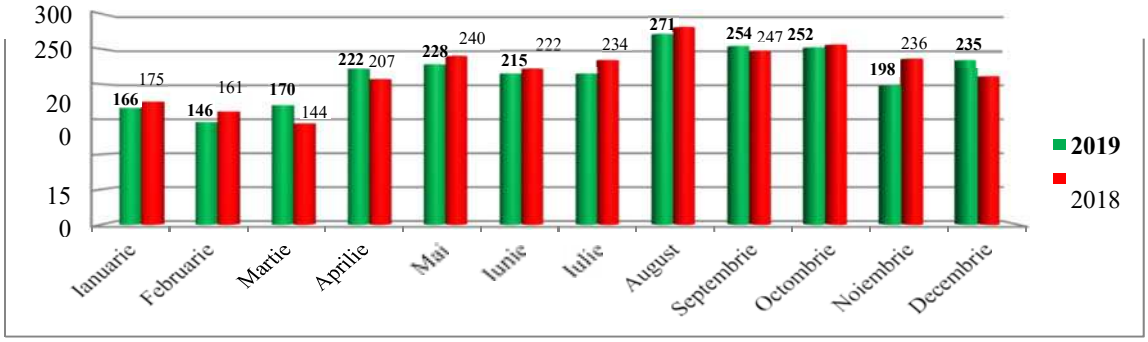
3. Research methodology

Road safety is the result of the reduction to eliminate the risk of involvement in a road event. This is possible by implementing legislative, educational-preventive, regulatory, institutional and technical solutions. These dimensions interrelate in a dynamic way, in constant change and adaptation to the legislative or infrastructure conditions in each country, generating the elaboration and application of various intervention strategies both at European and national level. Road safety also refers to the reduction of road accidents that can be with contraventional and civil consequences, but also with criminal consequences. Road safety is a responsibility of several institutions at central and regional level of the Ministry of Internal Affairs, public and private authorities, as well as civil society. Reducing road accidents of any kind is a major goal, figure no. 2.

Thus, the issue of road accidents is analyzed, starting from the legislative basis, continuing with the collaboration between the responsible institutions and ending with the procedure applied in order to protect traffic participants. In the case of accidents, the institutional collaboration is applied in such a way that the workers in the system investigate by various methods the causality and the consequences of the road incident applying the legislation in force. They will be taken to ensure safe traffic building intervention strategies.

The relationship between these dimensions has a dynamic side and is constantly changing and adapting to the legislative or infrastructure conditions in each country. Collaboration between institutions with responsibility in the road field will generate building intervention strategies.

Figure no. 2. Monthly dynamics of road accidents in the Republic of Moldova, 2018-2019



Source: Information system "Road Accident Register", managed by the Information Technology Service of the Ministry of Internal Affairs of the Republic of Moldova, 2019

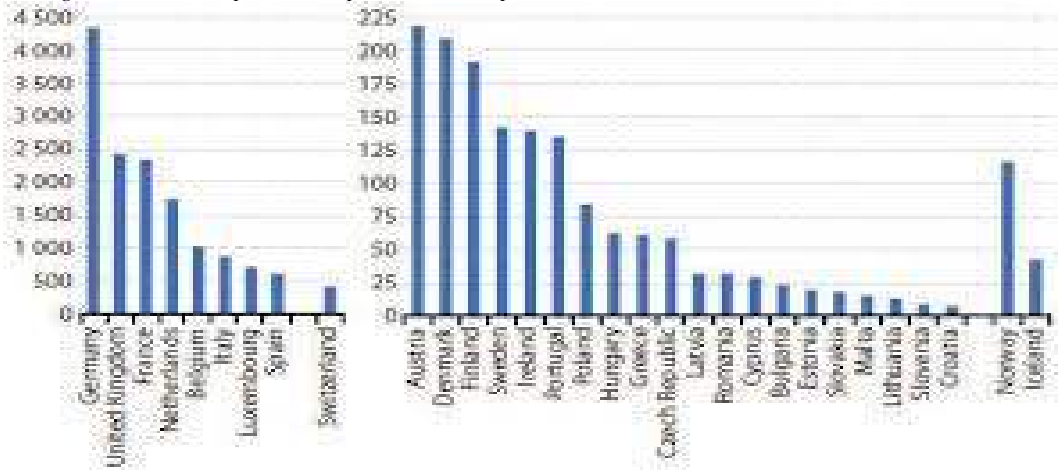
The latter will clearly and rigorously cover the specific tasks of each authority involved. Road safety will be based on these strategies. Compliance with road rules, respectively those relating to both road and technical infrastructure of vehicles involved in traffic, will definitely influence the number of road accidents, which is a pressing issue today.

The road transport safety at the level of the European Union corroborated with the national road safety of the Republic of Moldova highlights the urgent need to implement and implement strategies with immediate effects.

European integration is perceived as a fundamental desideratum of the internal and foreign policy of the Republic of Moldova, and this will materialize primarily through countless internal transformations of the country.

The general transport network in the European Union is of particular importance, especially given the operation of the two directives on the free movement of goods and services within the European Community. Thus, analyzing the perspective of the evolution of transport in the Member States of the European Union, it is found that in all countries, without exception, transport by car is the largest share, in some countries being over 90% as in the case of Denmark, Germany , Sweden, Finland and others, figure no. 3.

Figure no. 3. Transport developments in European Union Member States



Source: http: //www.revistadestatistica.ro/suplement/wp- content / uploads / 2017/08 / RRSS_08_2017 _A6_ro.pdf

The Government of the Republic of Moldova aims to make sustained efforts to promote the reforms requested by both Moldovan society and the international community in the fields of ensuring media freedom, independence of the judiciary, economic liberalization - vital areas for the true promotion of European integration. By coherently promoting policies for the Europeanization of all aspects of the country's socio-political and economic life and the signing of the Association Agreement with the European Union, the Government will succeed in transforming the Republic of Moldova into a country eligible for membership in the foreseeable future. EU. "

The vision of the strategy includes the organization of the national transport network so as to cover the entire territory, the elimination of areas that present a challenge in terms of transport volume and quality, meeting the mobility needs of citizens, developing intermodal transport, ensuring safety and environmental protection. The strategic options in the field of transport infrastructures consider the development of specialized and efficient physical infrastructure networks, compatible with the European and international infrastructures that would support the sustainable development of the national territory and that would ensure:

- affirming the position of the Republic of Moldova as the main plate of continental and intercontinental transports;
- organizing national networks for all modes of transport so as to ensure better coverage of the territory;
- elimination of deficient areas in terms of transport volume and quality and better meeting the travel needs of citizens;
- development of intermodal transport both in traffic and in impact areas with the main European corridors;
- ensuring the greatest possible security in transport and the protection of the environment.

4. Findings

Through the general studies we have tried to offer a solid argument in order to use this type of management, insisting on the particularities identified in relation to road safety.

During the scientific research, in the future we will promote fundamental theoretical connections with practical elements and real case studies in the field, thus, it is hard to provide a complete picture both from a systemic and functional point of view. Case studies serve as case studies, the analysis of different logeslaative documents and their content, comparative analyzes, comparative judicial statistics will complete the qualitative research we have promoted.

The functional objectives of the article, which derive directly from the fundamental objective are:

- substantiation of integrated management in the field of road safety;
- identification of the main aspects of interest in integrated management with reference to road signaling and systematization as elements to ensure road safety;
- identifying the preventive aspects that can be used in the analysis of the causes of accidents in the light of the practices of the EU countries, as well as the choice of models to be implemented through the benchmarket;
- the specifics of the integrated management in the preventive-educational area as an element of promoting road safety;
- learning from critical situations, through the proactive exploitation of the factors and causes generating road accidents;
- identification of good practices by analyzing the managerial aspects related to road safety in some European countries and their implementation in the Republic of Moldova.

5. Conclusions

Integrated road traffic management is the integrated dimension of management to be analyzed from the perspective of prevention activities, highlighting aspects related to traffic signaling and systematization. The modernity of society at European level, and not only, generates a broader relationship between the institutions and authorities responsible for the organization, signaling and systematization of road traffic. The European Union must take steps to harmonize the laws of

the Member States in order to benefit from efficient and safe transport, transposing them into national legislation helping to ensure road safety, reduce the number of accidents and deaths on European public roads.

In the context of the above, it is obvious that for the modernization of transport processes with the aim of increasing the quality of transport services, it is desirable to adopt a series of actions within a unitary plan, both nationally and at the level of each organization working in the field. :

- developing an appropriate legislative framework in relation to similar directions in the European Union;
- elaboration of some plans for the development of urban transport on medium and long term in relation to the socio-economic directions and strategies;
- elaboration of norms and procedures at the level of each unit / subunit in order to increase the safety and security of transport services;
- elaboration of studies and analyzes based on modern methods on risks in ensuring reliability;
- development of analysis tools based on new technologies to model unwanted phenomena / actions and make appropriate decisions (many decisions, decisions in conditions of risk and uncertainty, etc.);
- developing models for simulating decisions in the event of undesirable phenomena that would disrupt the smooth running of transport systems;
- the introduction of new technologies, a video monitoring system in all sectors of transport activity with a focus on cross-border and international communications;
- launching wide-ranging programs and projects to improve the quality of transport services at national level and within urban networks;
- proper financing of the development of transport infrastructures (acquisition of new means of transport, facilitation of their maintenance, etc.) and encouraging the development of intelligent transport systems.

We appreciate that it is not possible to achieve the strategic objectives at national level without a program supported by the research - development - innovation process in the field of transport, including urban public transport and services directly aimed at the citizen.

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- file:///C:/Users/Dell/Desktop/REZ-BANCIU.pdf

Real Convergence in the European Union: An Empirical Approach

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Abstract

One of the fundamental pillar of the European integration architecture aims the convergence of economic performance between Members. This objective has proved to be increasingly difficult to achieve nowadays, given the economic, social and sanitary challenges that occurred both at regional and global level. The aim of this paper is to study conditional β-convergence between 2000 and 2019, trying to identify the factors that enhanced economic growth. By applying panel regressions, we have found evidence in favor of the convergence process at Community's level, taking into consideration the inverse relationship between the initial level of income and the subsequent growth rates. Moreover, the results of the empirical study suggest that factors such as gross savings, imports, real labor productivity, business freedom and citizens' voice and accountability had a favorable impact on the economic growth rates in the European Union between 2000 and 2019.

Key words: Real convergence, conditional β-convergence, European Union
J.E.L. classification: O40, O47, O52

1. Introduction

Looking back to the history of almost seven decades, one can say that the European Union has proved its ability to promote "unity in diversity", capturing under same common values the identities of twenty-seven European states. One of the fundamental pillar of the European structure even since its establishment was to promote economic convergence between its Members. However, this goal proved to be difficult to reach given the subsequent challenges that took place at regional level, which varied from economic and financial to migrations and sanitary crisis. Moreover, the last waves of enlargement has redefined the landscape of the European continent, brining closer than ever countries with heterogeneous economic performance and different political and social backgrounds. Given the turmoil that take place nowadays inside and outside the borders of the European Union, maintaining political stability and prosperity is essential in order to preserve the unity between its Members. The main purpose of this paper is to study the economic growth determinants in the European Union between 2000 and 2019, taking into consideration the conditional convergence framework. By employing panel regressions based on cross-sectional weights and fixed effects, we have illustrated that factors such gross savings, imports, real labor productivity, business freedom and citizens' voice and accountability had a favorable impact on the economic growth rates in the European Union between 2000 and 2019. In contrast, the growth rates were hampered by high level of tax rates and by the economic and financial crisis. The results also illustrate that the rate of convergence exceeds the value of 2% when taking into consideration economic and social variables, besides the initial level of GDP per capita. The negative sign of the α_1 coefficient confirms the convergence process in the European Union, suggesting that the poorer Members experienced higher GDP per capita growth rates than the developed economies. The paper is structured as follows. The second section presents the findings of the previous studies in the field of convergence, outlining the trends that took place in the European Union. The following section incorporates a description of the data and methodology and continues with the presentation of the results of the econometric study, explaining the main findings of the conditional convergence model. The last section summarizes the main findings, also highlighting the limitations and future directions of study.

2. Literature review

Empirical studies in the field of economic growth were developed in the 20th century and expanded in the last decades, with the subsequent waves of enlargement of the European Union. In the second half of the last century, exponents of the neoclassical growth model (Solow, 1956) considered that economies with low incomes and capital stocks experienced higher growth rates than advanced economies due to the decreasing returns on capital. In the neoclassical framework proposed by Solow, all economies were considered to reach the same state of equilibrium, the technological factor being exogenously given. However, at the end of the last century, as more and more developing economies found impossible to follow a positive path towards long-term economic growth, the applicability of the neoclassical theory began to be questioned. Consequently, new (endogenous) theories were developed by analysts such as Romer (1986, 1990) and Lucas (1988). The endogenous theories outline the possibility that developed economies continue to grow, exceeding the equilibrium state defined by the neoclassical model, and low-income states to lag behind. In the endogenous model, the capital no longer includes only the physical capacities, but also the intellectual abilities of the labor force. Barro and Sala-i-Martin (1991, 1992) expanded the methodology in the field of economic growth, based on the neoclassical growth models, developing two key concepts: β- and σ-convergence. For a better understanding of the two concepts, Barro and Sala-i-Martin (1991|) note that β-convergence highlights how fast an economy will reach the average level of income of countries or regions. In contrast, σ-convergence is used to study of past trends and potential future developments of income differentials between economies.

The trends that took place in the European Union have been widely studied in the last decades, analysts focusing on absolute and conditional convergence models. Duro (2012) noted that the exponents of the neoclassical growth model have popularized the concept of absolute convergence, which refers to the process in which less developed economies experience higher growth rates than rich ones. From this perspective, economies with similar initial incomes and macroeconomic determinants will reach the same equilibrium level. In contrast, conditional convergence assumes that the growth rates wills depend on the particular conditions of each economy. From this perspective, less developed economies will not necessarily have higher growth rates than developed ones, and the speed of convergence will depend on the distance of each economy from its own equilibrium.

Taking into consideration that there are robust evidence that the European Union's Member States differ in their economic, social and structural conditions, conditional convergence has been recently increasingly studied. In this respect, analysts such as Stanišić (2012), Dobrinsky (2013), Dobrinsky and Havlik (2014), Rapacki and Próchniak (2019), Marelli et al. (2019) conducted in-depth studies of conditional convergence at aggregate or sub-group level. Marelli et al. (2019) were interested in studying the absolute and conditional convergence in both the European Union and Eurozone, conducting a comparative analysis of the performance of the two groups between 1995 and 2016. In order to test conditional convergence, analysts used cross-section and panel regressions, including as explanatory variables, which characterize the heterogeneity between states the following factors: trade openness, technological progress, investments in physical capital, human capital and the rate of net migration. Applying the equation based on cross-sectional regressions, analysts concluded that the convergence rate at the aggregate level increased with the expansion of the group. In this respect, the conditional model indicates divergences among the Old Member States (15) between 1995 and 2016. Extending the sample by taking into consideration the European group (27), Marelli et al. identified a convergence rate of around 4%, which mainly reflects the high performance of the New Member States.

Similarly, Dobrinsky (2013) examined conditional convergence at Community's level, including in the regression equation the following variables: labor cost, domestic savings, domestic and foreign savings and the share of global exports. According to the result of the econometric model, GDP growth rates were mainly influenced by the labor costs and export performance. The convergence rate was around 2% between 2000 and 2011. Dobrinsky pointed out that the European Union's economic advance was mainly based on over-indebtedness, so that while aggregate GDP increased by 17%, public and private debt raised by 50%. However, trends have not been homogeneous at

Community level, so that the new Member States have largely avoided public finance gaps.

Rapacki and Próchniak (2019) investigated the factors that contributed to the catching-up process, taking into consideration variables linked to the European Union membership (economic freedom, governance, European funds, international trade, foreign investment and economic reforms) and other indicators targeting the economic and social framework. At the same time, the control variables also include a dummy variable, in order to highlight the impact of the economic crisis. By applying multiple regressions, analysts pointed out that the accession to the European Union contributed to the income convergence in the Central and Eastern European countries, all seven variables taken into account being statistically significant. At the same time, analysts found evidence to support the hypothesis that the structural funds had a beneficial influence on convergence within the Central and Eastern European region. Moreover, the process of economic growth was favored by the improvement of the institutional quality and trade and financial integration. Rapacki and Próchniak pointed out that the convergence process is not automatic, requiring concrete steps from public authorities, especially in the field of strengthening the institutional framework. At the same time, analysts noted that the structural funds had a defined role in the economic emancipation of the New Member States, so that a possible reduction in their amount could have a negative effect on the economic recovery process.

Próchniak (2011) studied the main determinants economic growth in the Central and Eastern Europe between 1993 and 2009, taking into consideration both demand and supply side determinants. According to the analyst, demand-side determinants mainly influence short-term economic growth, while supply-side factors have a long-term effect. The analyst pointed out that FDI and gross fixed capital formation played a major role in economic growth in the CEE region. At the same time, Próchniak highlighted the defining role that human capital played in the economic emancipation of ex-communist states, illustrating that a higher proportion of employees with tertiary education will positively influence the GDP rate. The analyst highlighted the existence of a negative relationship between the deficit and public debt and economic growth, concluding at the same time that the structure of the economy did not influence the GDP dynamics. In terms of population structure, Próchniak pointed out that a higher share of the active population determined higher growth rates.

3. Research methodology

The aim of this paper is to study conditional β-convergence in the European Union, trying to identify the determinants of economic growth between 2000 and 2019. In this respect, we have employed panel regressions using cross-sectional weights and fixed effects. We have initially computed the equation taking into consideration three variables related to the level of savings (gross savings as % of GDP), trade (imports of goods and services % of GDP), level of taxation (tax burden) also including the lagged value of GDP per capita. Subsequently, we have expanded the equation with other determinants regarding the labor market (real labor productivity per person) and governance (business freedom and voice and accountability). All three equations include a dummy variable related to the economic and financial crisis (1 for 2008 and 2009 and 0 for the rest of the years included in the analysis).

The decision to compute the regressions with fixed effects was taken based on the results of Hausman Test, where in all the cases the p-values were below 5%, so we rejected the null hypothesis of random effects. All the equations included as explanatory variable the lagged value of GDP per capita and were performed with robust standard errors. We have initially studied the impact of economic and governance related variables, based on the following equation:

$$lny_{i,t} - lny_{i,t-1} = a + \alpha_1 \ln(y_{i,t-1}) + \alpha_2(Savings) + \alpha_3(Imports) + \alpha_4(Tax\ burden) + \alpha_5(dummy) + \varepsilon_{i,t}$$

Then, we have expanded the equation 1 by including an indicator related to the labor productivity:

$$lny_{i,t} - lny_{i,t-1} = a + \alpha_1 \ln(y_{i,t-1}) + \alpha_2(Savings) + \alpha_3(Imports) + \alpha_4(Tax\ burden) + \alpha_5(RLP) + \alpha_6(dummy) + \varepsilon_{i,t}$$

Finally, the model was expanded with two other factors that aim the governance framework:

$$lny_{i,t} - lny_{i,t-1} = a + \alpha_1 \ln(y_{i,t-1}) + \alpha_2(Savings) + \alpha_3(Imports) + \alpha_4(Tax\ burden) + \alpha_5(RLP) + \alpha_6(Business\ freedom) + \alpha_7(Voice) + \alpha_8(dummy)_{i,t} + \varepsilon_{i,t}$$

The variables, sources and the expected influence are presented in Table 1:

Table no. 1. Variables, definitions and sources

Variable	**Definition**	**Source**	**Expected sign**
GDP per capita (y)	GDP per capita at market prices (PPS per capita)	Eurostat	The lagged value - Negative
Gross savings	Gross savings (% of GDP)	World Bank	Positive
Imports	Imports (% of GDP)	World Bank	Positive
Tax burden	Composite indicator, part of Index of Economic Freedom	The Heritage Foundation	Negative
RLP	Real labor productivity per person employed (index, 2010=100)	Eurostat	Positive
Business freedom	Overall indicator which reflects the efficiency of business environment – part of Index of Economic Freedom	The Heritage Foundation	Positive
Voice and accountability	Indicator which encompasses the perceptions related to the participation of citizens in selecting the government and different forms of freedom – part of Worldwide Governance Indicators	World Bank	Positive

Source: Author's presentation

Table 2 presents the statistical description of the variables. The descriptive statistics confirm that the European Union is not homogenous in terms of economic and social performance. We excluded from our analysis Luxemburg, Malta and Cyrus, taking into consideration that the values of the indicators might be distorted by the activity of the offshore companies. However, as data shows, there are still large differences between the mean and median values of the selected indicators and the maximum and minimum. Although important progress has been made in recent years, convergence in terms of GDP per capita has not been achieved so far. Ireland recorded the highest value, reaching 60,500 PPS in 2019, while Romania had a modest performance in the field of this indicator in 2000 – 5,100 PPS. At the same time, Ireland had the highest percentage of savings in the last years of the analysis (2016-2019), while low values were recorded by Greece and the United Kingdom. The average value of imports at Community's level was at 50.6% between 2000 and 2019, with significant differences between countries such as Ireland and Italy or Greece. Regarding the tax burden, high values indicating a trend of surcharge were recorded by Bulgaria and Lithuania, especially in 2012 and 2013. At the same time, Romania appears in the top of the ranking, with a score of 90 points in 2019. In the opposite part, there are states such as Sweden and Denmark, with values ranging from 30 to 40. Regarding labor productivity, high values were recorded in 2019 by Ireland and Romania. Despite the performance in the last years of analysis, Romania, together with other Central and Eastern European countries lagged behind in the ranking at the beginning of the analyzed period. In the field of business freedom, values close to or equal to 100 were recorded by Denmark, Sweden and Finland. At the bottom of the rankings were Central and Eastern European countries such as Poland, Croatia, Romania and Bulgaria. Referring to the involvement of citizens in society, superior performance were experienced by Denmark, Finland, Sweden, the Netherlands, while at the opposite pole were the Central and Eastern European countries.

Table no. 2. Descriptive statistics

Variable/ Indicator	Mean	Median	Maximum	Minimum	Std. Dev.
GDP per capita	23630.60	23650.00	60500.00	5100.00	8802.71
Gross savings	22.04984	22.48754	34.48096	4.870078	5.165728
Imports	50.64980	46.25000	113.8000	22.80000	18.51117
Tax burden	63.15440	62.30000	94.00000	29.80000	15.57135
RLP	98.92020	100.0000	146.2000	53.60000	10.52277
Business freedom	77.01820	76.10000	100.0000	53.70000	10.63572
Voice and accountability	1.105431	1.107324	1.800992	0.299219	0.345313

Source: Author's computation

4. Findings

Table 3 illustrates the results of the panel regressions using cross-sectional weights and fixed effects. First of all, the negative sign of the α_1 coefficient confirms the convergence process in the European Union, suggesting that the initially poorer Members experienced higher growth rates than the developed ones between 2000 and 2019. Moreover, the coefficient is statistically significant (p-value < 1%) in all the regressions. As reflected by earlier studies, the average convergence rate under the absolute framework, where the growth rates are explained by the initial level of GDP per capita is around 2% per year (Dobrinsky, 2013; Dobrinsky and Havlik, 2014, Rapacki and Próchniak, 2019). However, when including other explanatory variables, the coefficient tends to have higher values (Stanišić, 2012; Marelli, 2019). This conclusion can be drawn also from our study as the convergence speed, determined based on α_1 coefficient varies from 4.5% (equation 1) and 8.8%

(equation 3). As shown by the results of the panel regressions with cross-sectional weights, the coefficient is higher when adding more explanatory variables. Consequently, these findings suggest that the growth rates in the European Union are determined not only by the initial level of GDP per capita, but also by the economic and social performance. When computing the regressions with fixed effects, the values of coefficient is significant higher compared to cross-section weight, still maintaining its statistically significance and the negative sign. Regarding the explanatory variables included in the model to control the differences between economies, they have the expected influence on the dependent variable, except for the tax burden indicator, which in the first (cross-sectional weights) and last equation (fixed effects) has a positive sign. The outline model confirms the beneficial influence that gross savings, imports and labor productivity had on economic growth rates at Community's level. At the same time, the estimated model shows that a stable business environment, as well as the involvement of citizens in the government selection had a favorable effect on prosperity of the Member States. In contrast, the tax burden and the economic and financial crisis, measured by a dummy variable (1 for 2008 and 2009 and 0 for the other years) had a negative impact on the income per capita growth rates. The values of the coefficient of variation suggest that the model explains in a proportion of 50% the variation GDP per capita in the European Union.

Table no. 3. Conditional β-convergence results

Dependent variable: Annual GDP per capita growth rate						
Method: Panel Least Squares						
Effects	EGLS (Cross-section weights)	Fixed	EGLS (Cross-section weights)	Fixed	EGLS (Cross-section weights)	Fixed
Total panel observations Variable	466	466	466	466	419	419
C	0.3544* (0.1065) (3.3267)	0.5137* (0.0788) (-5.6613)	0.2674** (0.1203) (2.2213)	0.5973* (0.0732) (5.2181)	0.1957 (0.1730) (1.1308)	0.6513* (0.1029) (5.1946)
GDP per capita (-1)	-0.0449* (0.0072) (-6.1890)	-0.1403* (0.0108) (-5.6613)	-0.0535* (0.0069) (-7.7036)	-0.2809* (0.0187) (-6.3471)	-0.0878* (0.0111) (-0.0878)	-0.3121* (0.0211) (-7.2164)
Gross savings	0.0325* (0.0081) (3.9714)	0.0676 (0.0105) (4.7349)	0.0343* (0.0080) (4.2399)	0.0584* (0.0097) (4.6626)	0.0358* (0.0080) (4.4422)	0.0679* (0.0106) (5.3347)
Imports	0.0068*** (0.0041) (1.6553)	0.2000* (0.0195) (4.3794)	0.0057 (0.0038) (1.4828)	0.1659* 0.0184 (4.5829)	0.0032 0.0041 (0.7933)	0.1860* 0.0200 (5.1975)
Tax burden	0.0018 (0.0100) (0.1801)	-0.0131 (0.0232) (-0.5824)	-0.0056 (0.0100) (-0.5596)	-0.0012 (0.0214) (-0.0550)	-0.0005 (0.0104) (-0.0520)	0.0145 (0.0258) (0.5652)
RLP			0.0438** (0.0217) (2.0119)	0.3106* (0.0349) (4.7468)	0.1135* (0.0360) (3.1521)	0.3324* (0.0414) (4.5022)
Business freedom					0.0173 (0.0152 (1.1360)	0.0190 0.0205) (0.7733)
Voice and accountability					0.0367* (0.0079) (4.6241)	0.0280** (0.0118) (2.1687)
Crisis dummy	-0.0577** (0.0240) (-2.0240)	-0.4785** (0.0048) (-2.4481)	-0.0565** (0.0236) (-2.3957)	-0.0382** (0.0046) (-2.1472)	-0.0553** (0.0226) (-2.4443)	-0.0345** (0.0047) (-2.1873)
Prob (F-statistic)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
R-squared	0.4801	0.5896	0.4840	0.6526	0.5161	0.6792
Adjusted R-squared	0.4744	0.5623	0.47773	0.6286	0.5066	0.6530
Durbin Watson	1.7883	1.8078	1.7533	1.5885	1.7759	1.6271

Source: Author's computation

Note: * - p-value < 1%; ** - p-value < 5%; *** - p-value < 10%; robust standard errors and t-statistics in parentheses

5. Conclusions

Economic convergence has always been one of the principle of the European integration architecture. Nowadays, the capacity of the European Union to achieve this objective has been called into question, taking into consideration the economic, social and sanitary turmoil that threatens the regional and global stability and prosperity. The main purpose of this paper was to study conditional β-convergence, by taking into consideration several economic and social variables. In contrast with absolute convergence framework, which takes into consideration the relationship between the initial level of capita and subsequent growth rates, the conditional allows the incorporation or other factors that might explain the growth rates differentials between countries. The main determinant of economic growth proved to be the real labor productivity between 2000 and 2019. Consequently, European decision makers should design measures aiming to improve the skills of the labor factor. At the same time, political actors should focus on increasing the level of gross savings, an important determinant of prosperity. On trade side, our empirical study suggests that imports have a beneficial influence on economic growth. Consequently, the European Union's trade policy should have as central pillar the free trade perspective. Last but not least, the estimated models show that the involvement of public authorities by creating an appropriate environment for businesses, as well as to grant freedom of expression to citizens bring economic benefits. By contrast, our study suggests that a high level of taxation hampered the economic growth potential in the European Union. The main limitation of this study is the limited number of explanatory variables, which are taken into consideration. Although the research encompasses both social and economic variables, it provides a limited explanation of the economic growth process. Consequently, the study may be continued by studying the influence of other variables on economic growth.

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The Dimensions and Trends of the Foreign Trade Activity of the Companies in Dobruja Region

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Abstract

In this paper, the authors have intended to conduct a study of the dynamics of the foreign trade activity in Romania and more specifically in Dobruja region in the current world economy context, and implicitly that of the Romanian economy. The purpose of this paper is to analyze the evolution of the values of CIF (Cost, Insurance, and Freight) imports and FOB (Free on Board) exports and also to identify the situation of the trade balance over the last 5 years, of CIF imports and FOB exports in Romania and especially at the local level, in Dobruja Region. An analysis will also be carried out based on the data identified at the level of the economic indicators analyzed for the period in which the effects of the COVID-19 crisis have been experienced. Based on the evaluation, the expansion of the analysis is envisioned, so as to anticipate the future trends of FOB exports and CIF imports.

Key words: import, export, deficit, surplus, indicator
J.E.L. classification: F13, F40, C10, H60

1. Introduction

International trade has taken historical, economic, and organizational forms ever since the thirteenth century when a part of the national surplus was distributed to another nations. Over time, each country has organized its own foreign trade by signing treaties and joining international organizations which regulate the settlement of disputes and facilitate the implementation of international trade acts. A country's foreign trade, generically speaking, is the measure of all the transactions carried out in the form of imports and exports. The Differences between the value of imports and the value of exports represent the net export, which can take a negative form, i.e., a deficit or a positive one, i.e., a surplus.

Economists have proven that the volume, dynamics and structure of the foreign trade influence the economic growth of a country. The monthly newsletters published at ministry level highlight the fact that Romania's exports and imports are orientated mainly toward the European countries (over 80%) and only to a small extent towards the rest of the world. The analysis of the evolution of the imports and exports over the last years at the country level and then in the two counties, Constanța and Tulcea, will allow us to outline the tendencies of the foreign trade activity of the companies in this region of the country.

As they appear in the methodological specifications of INSSE, the goods which are the object of international trade are classified according to the Combined Nomenclature (C.N.), which is the basis of the common customs tariff (insse.ro).

FOB (Free on Board) value is the price at the border of the exporting country, which includes the value of the good, all the transportation costs up to the point of boarding, as well as all the taxes incurred in order for the goods to be loaded on board (insse.ro).

CIF (Cost, Insurance, Freight) value is the price at the border of the importing country, which includes both the components of the FOB value and the costs of the insurance and international

transport (insse.ro).

This paper starts from an analysis of the data recorded by the Romanian imports and exports in the 2015-2019 period and continues with a more detailed analysis of their evolution over the last period of time. Moreover, we have used a series of data and graphs so as to highlight the dimensions of the international exchanges made by Romania and especially Dobruja Region in the economic context generated by the COVID-19 crisis.

2. Literature review

Anghelache, Stoica and Dumitru (2020) published in The Romanian Statistical Review an article on the evolution of Romania's international trade in goods and services within the first quarter of 2020 and its perspectives. Manole, Carp, Nicola and Popovici (2017) published an article in The Romanian Statistical Review which suggests a study on how Romania's foreign trade activity has evolved in terms of quantity and value.

Anghelache, Manole and Sacală (2014), Anghelache et.al (2014) studied the evolution of Romania's foreign trade and suggested a model by which the correlation with the GDP is analyzed.

Anghel, Anghelache, Niță (2017) carried out an analysis of the correlation between the international trade and economic growth. Based on the series of data published by Eurostat on per capita gross domestic product, imports, exports, and coverage ratio of imports by exports, the authors analyzed the correlation between these statistical variables.

Anghelache, Anghelache and Dumbravă used structural analysis to tackle the issue of international trade.

Atkeson and Burstein (2008) addressed the relative costs and prices associated with international trade.

Bernard et al. (2012) conducted an empirical study on international trade in Romanian Statistical Review - Supplement no. 3/2017,

Büthe and Milner (2008); Bostan (2010) discussed the international trade agreements and the importance of foreign direct investment in reference to the developing countries.

Etro (2015) analyzed the international trade and the endogenous market structures.

3. Research methodology

This paper uses a descriptive and exploratory research method. Cause-effect relationships have been presented and explained, with the presentation of solid statistical data and, as an inductive nature, the different interconnection relationships with direct and indirect involvement factors have been pursued.

For data collection, studies and reports published by various national and international institutions, bodies and organizations have been analyzed, in order to obtain a comprehensive description of the addressed issues (both qualitative and quantitative).

4. The analysis of Romania's foreign trade

The data published by INS over the years show that the balance of Romania's international trade has always been negative. After joining the EU it was even larger than before accession, which in theory is not necessarily a negative thing, if it is corrected in time. An analysis of the categories of goods which are the object of imports and exports can bring more information in this regard.

Table no. 1- Romania's International Trade in the 2015-2020 period

	2015	2016	2017	2018	2019
TOTAL EXPORT	54598,30	57392,24	62641,91	67723,43	69003,40
TOTAL IMPORT	62967,68	67364,43	75598,44	82839,89	86284,97
BALANCE	-8369,38	-9972,18	-12956,53	-15116,46	-17281,57

Source: www.insse.ro

Figure no. 1 Romania's International Trade in the 2015-2020 period



Source: www.insse.ro

As can be seen in the graph and table above, we performed an analysis of the results recorded in the 2015-2021 period based on the data published regarding FOB exports and CIF imports, resulting in both exports and imports having an upward trend. But the increase of the two analyzed indicators is not equal, hence the finding that in the analyzed period the trade deficit is also increasingly high, reaching in 2019 almost a double value than the one recorded in the year 2015. The consequence of this deepening of the trade deficit is the negative effect on our country's economy, more specifically on the Gross Domestic Product indicator.

Following the analysis which was carried out, we wanted to see what would be the evolution over the last months taken into account in the above analyzed table.

Table no. 2 Total EU27 foreign trade in 2019-2020, per month

		FOB Export		CIF Import		Balance FOB/CIF
		mil. euro		mil. euro		
2019	January	5509.2		6782.2		-1273
	February	5893.9		7047.2		-1153.3
	March	6129.8		7426.2		-1296.4
	April	5530.9		6923.7		-1392.8
	May	6270.8		7753.6		-1482.8
	June	5560.7		6692.1		-1131.4
	July	5849.5		7628.4		-1778.9
	August	5002.7		6363.7		-1361
	September	6100.1		7288.2		-1188.1
	October	6330.5		8298.3		-1967.8

	November	5998.8		7486.4		-1487.6
	December	4826.5		6595		-1768.5
2020	**January**	5689.5		7004.5		-1315
	February	5939		7223.9		-1284.9
	March	5429.7		7288.6		-1858.9
	April	2932.8		4566.8		-1634
	May	3755.7		5007		-1251.3
	June	4843.3		6164.6		-1321.3

Source: www.insse.ro

From the analysis of the table and graph above, it can be seen that in the analyzed period the value of the imports, although on the decrease, exceeds that of the exports, also on the decrease, thus representing a negative balance which means an unfavorable contribution of the FDI enterprises. This phenomenon produces other effects on the gross domestic product, the deficit impeding a healthy growth of the Romanian economy.

The data recorded in the first three months of 2019 show a constant increase in both imports and exports. This trend is maintained in 2020 but at lower volumes than in the previous year. However, the analysis of the two years taken into account shows a substantial decline in April and June. In April the lowest values for both indicators in all the analyzed results are recorded.

Figure no. 2 Total EU27 foreign trade in 2019-2020, per month



Source: www.insse.ro

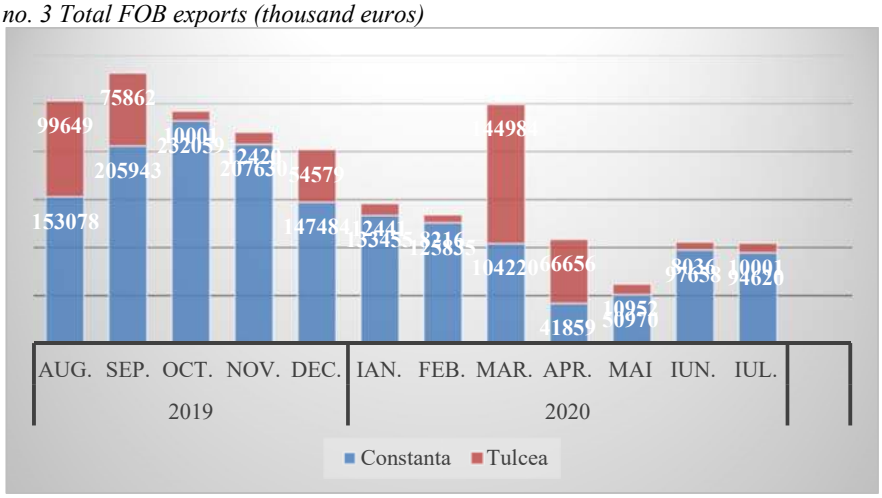
The monthly foreign trade developments, however, show a rebound. In April, the recovery process intensified. Thus, compared to April, exports and imports of goods increased significantly.

5. The foreign trade activity in DOBRUJA REGION

Next, we have analyzed the results recorded between August 2019 and July 2020 of the situation of imports and exports in Dobruja region.

As can be seen from the graph below, Dobruja region is part of the same trend noticed throughout the country for the same period. 2020 was a year in which the values of the exports of the organizations operating in Dobruja region had half of the values recorded in the months analyzed for 2019. It can also be noticed that the downward trend in exports is has occurred ever since the last months of the year 2019.

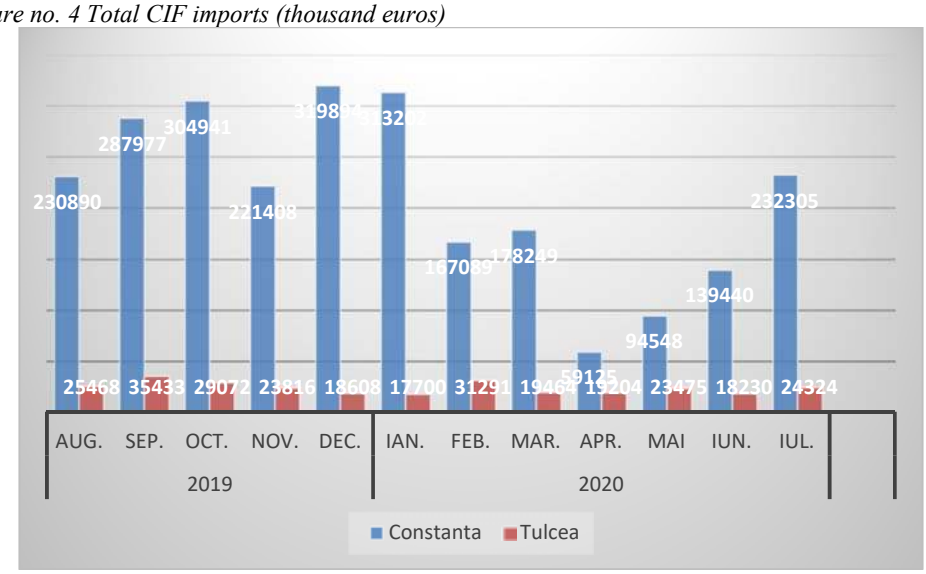
Figure no. 3 Total FOB exports (thousand euros)



Source: www.insse.ro

Regarding the analysis of the data on imports by companies in Dobruja region, one can also notice a decrease in values starting with the first months of 2020, increasing in April, when the lowest value of the entire analyzed period was recorded. In keeping with the trend of the imports at country level, starting with May, the values begin to increase timidly, obviously being well below the values recorded prior to April's fall.

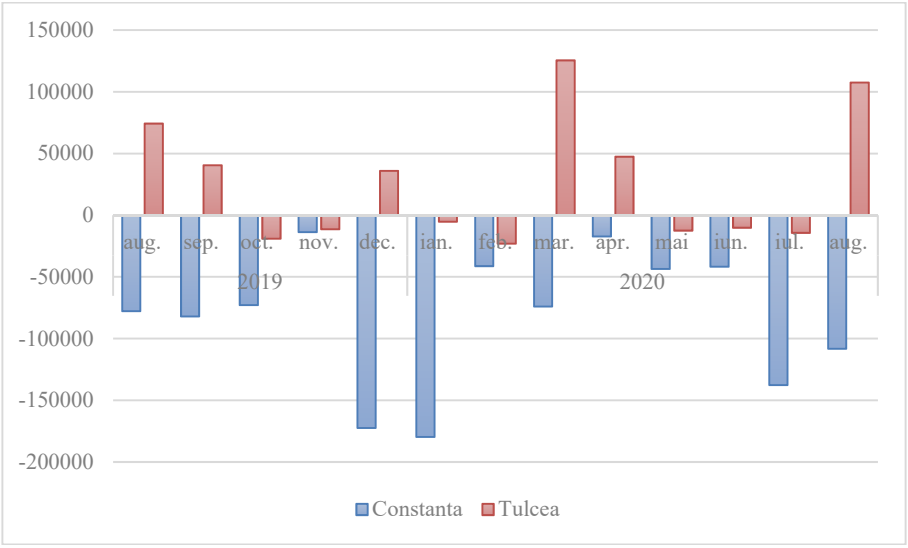
Figure no. 4 Total CIF imports (thousand euros)



Source: www.insse.ro

The graph below shows the balance recorded by Dobruja region regarding the foreign trade of the organizations in this region in the August 2019-August 2020 period. One can see that for Constanta county there is not even a single month in which a trade surplus was recorded. Even if during some months one can notice a surplus in Tulcea County, overall, the result in Dobruja region is a negative one, in line with the trend observed from the analysis of the national data.

Figure no. 5 FOB/CIF balance



Source: www.insse.ro

One can note that the coverage ratio of imports by exports expresses the inefficiency of the foreign trade situation in which the value of the exports of goods does not cover the value of imported goods. The negative balance of the foreign trade, unless it becomes a constant of these indicators, may not necessarily be a negative situation.

6. Conclusions

The table presented by conducting an analysis of the values recorded by the analyzed indicators shows a constant in terms of the negative trade balance (deficit) at the level of Romania and Dobruja region throughout the studied period.

Although this deficit is not always considered to affect the economy, this is true for shorter periods of time and not for years. The growing deficit recorded in the previous year will obviously bring about negative effects on the national and local economy.

Furthermore, we believe that the analyzed indicators entitle us to consider that this economic crisis will continue in the coming months at the level of Romania and Dobruja region.

Organizations in Dobruja region that carry out import - export activities must come up with strategies which would allow them to develop and ensure the fulfillment of the local requirements and a surplus which can become a part of the export of goods.

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Determining the Quality of Hotel Services in Mamaia Resort

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Abstract

The quality of services can give the hotel industry a great chance to create competitive differences for organizations, being considered an essential, significant concept and a critical success factor in this industry.

The quality of the services offered by a hotel is determined primarily by the satisfaction of its customers, the degree of fulfillment of their needs and desires. Numerous tools have been developed to measure the quality of services, which apply to both customers and hotel staff. The application of this tool allows to know the expectations and the level of customer satisfaction, and therefore the improvement of the services offered according to the needs of the guests. The most popular tool for measuring service quality is the SERVQUAL Model which has been applied in various service industries, including tourism and hospitality. This is the tool we also use to measure the quality of hotel services in Mamaia resort.

Key words: quality, hotel industry, services, SERVQUAL Model
J.E.L. classification: M10, M19, Z30, Z31, Z32

1. Introduction

The quality of a service has come into the spotlight of all companies in the last century because it is an aspect considered very important by the buyer who often makes a purchasing decision based on it. In recent years, many studies have been published that include quality as a very important aspect in the field of tourism. The hotel industry is one of the largest industries in the service sector and the aspect of quality is a really important fact in this domain. Providing quality services in the hotel industry faces challenges because the competition is very high in this sector. Many hotels focus on quality and want to offer a high one. It is also clear that some customers make a purchase decision only on the basis of higher quality. Thus, the aim of all hotels should be to increase the level of quality offered and to occupy a favorable position in the market.

The quality of hotel services is the extent to which the different requirements of customers are met through a set of intrinsic features. The quality of services provided by a hotel is given by customer satisfaction. They expect from the quality of services the fulfillment of the performance level and of the relational level, reactivity in case of a problem and predictability of the service quality. In this context, the hotel's focus must be on the customer and his requirements, on all levels, in order to achieve the highest possible level of quality.

New technologies have come to the aid of the hotel industry, which is an advantage in terms of information about what their customers want. The internet plays a key role nowadays, and the relationship between quality management, guest and internet is a new challenge for the hotel industry. The use of technologies helps the hotel to reach customers more easily and to find out their opinions about the services it offers, and can then, based on research, make continuous improvements to the services offered, in order to raise the quality degree offered.

2. Literature review

The tourist services have the role of permanently contributing to ensuring qualitative conditions of rest, relaxation and especially benefits, taking into account the current technical-scientific process and the improvement of management processes. In this context, the organizers of tourist services have the responsibility to organize and carry out tourist programs of the highest quality, designed to diversify the tourist offer, to increase their attractiveness and to meet the requirements and expectations of tourists. (Neagu V., Busuioc M., 2007).

According to the World Tourism Organization (WTO), "the quality of tourism is the result of a process that involves meeting all legitimate consumer needs, requirements and expectations in terms of product and service, at an acceptable price, in accordance with the contractual terms of a mutual agreement and the adjacent determinants of quality which are security and protection, hygiene, accessibility, transparency, authenticity and harmonization of the tourism activity concerned with the human and natural environment ". (as defined by the WTO Quality Support Committee, and amended at the 6th meeting - Varadero, Cuba, 2003)

Quality in the hotel industry involves meeting customer expectations, presenting the characteristics of service quality to meet stated or implicit needs, compliance with specified requirements and usability.

A hotel should also establish a policy regarding the complaints. This can be done, for example, by publishing a guarantee of customer service quality, which will give customers the opportunity to say what they were dissatisfied with during their stay. A recovery strategy should also be implemented as soon as possible - certainly before negative attitudes are established. (Petzer D. J., Steyn T. F. J., Mostert P. G., 2009).

Researching the correspondence between service quality criteria in the hotel industry and customer expectations is of particular interest to researchers. However, it was not intended to disclose the concept of quality on customer loyalty through these studies. This has become relevant because it is not necessarily the greater difference between expected and received quality that will affect customer loyalty.

According to Berry and Parasuraman (1991) customer satisfaction is influenced by the availability of customer service, which is why the provision of quality services has become a major concern of all businesses. (Parasuraman A., Leonard L, Berry V., Zeithaml A., 1991). According to another author, "customer satisfaction is like a state of mind in which the customer's needs, desires and expectations throughout the life of the product or service have been met or exceeded, leading to subsequent acquisition and loyalty." (Anton, 1996). This is not the comparison itself (ie, the process of deconfirmation), but the customer's response to the comparison, satisfaction also having an emotional component.

Lee et al. (2015) in their study entitled "An Analysis of the Hotel Service Quality GAP and Customer Satisfaction" examined the discrepancy between performance and expectation in five dimensions of service quality and found that there are statistical differences in the customer satisfaction degree, between HGG (large gap group) and LGG (low gap group). Their analysis highlights that there is a discrepancy between expectation and performance in terms of the degree of hotel quality. The degree of discrepancy between performance and expectation in the five dimensions of service quality showed significant differences between hotel classes. This means that customers have a high expectation, but the quality of hotel services is low, which indicates dissatisfaction. Among the five dimensions of service quality, the score between the expectation difference and performance was the lowest in the receptivity dimension, but the gap score was the highest in terms of hotel class materials. (Lee N., 2015). Thus, service quality is assumed to be a function of employee-customer interactions if variations in customer contact performance lead to differences in service quality.

According to another study applied to hotels in the UK, it has been shown that in any service activity, the quality of service and customer satisfaction are the most important key marketing strategies for competitive differentiation and customer retention. Understanding this issue will help businesses be more successful. Due to competition in the service business, measuring customer satisfaction has become a common practice in hotels around the world in order to assess the quality of existing management practices and suggest the direction for improvement. (Mohamed, 2012).

The aim of this study was to research the components of hotel quality services and to examine the perception of service quality according to different customer segments. A questionnaire survey based on the SERVQUAL model was used to measure the quality of services. The result revealed that the SERVQUAL scale and other related variables are reliable and valid. In addition, the conclusions obtained from the application of the independent test showed that there is a significant difference in the perception of service quality at different customer segments / groups. (Mohamed, 2012).

Saleem and Raja (2014), in their study entitled "The impact of service quality on customer satisfaction, customer loyalty and brand image", showed that the reason for this study is to analyze the association between hotel service quality and analyze the cause of customer satisfaction, brand image and customer loyalty. The conclusions suggested that a high quality of services increases customer satisfaction and then this satisfaction will strengthen customer loyalty. (Saleem H., Raja N., 2014).

Qualitative and quantitative studies show that hotels can successfully adopt quality management practices. In the case of studies that show positive results, it can be emphasized that such benefits are related to improved customer, employee and other stakeholder satisfaction, improved operational results, improved efficiency which, in turn, leads to the improvment of the hotel image and its differentiation on the market.

Service excellence is the key to improving the customer-supplier relationship, but it can only be achieved if the customers' needs are known in detail. Services are an important element in the hotel industry that needs to be improved in order to survive nowadays and in the future. (Badler H., 2004). Quality and related services are the standard requirements of today's customers who will be the deciding factor in the future.

3. Research methodology

Given the fact that he is the one who directly benefits from the services, the customer is the one who decides the quality according to the degree of satisfaction of his needs. The needs of the client are the requirements that motivate him to act to satisfy them and the characteristics of the hotel service must satisfy these needs. The customer can be in this sense the main pillar in all activities and processes and evaluations of satisfaction of hotel services. For the organization, customer feedback is paramount and allows for quality improvement, from this approach resulting in the fact that the products and services offered by a hotel must be designed according to customer needs and preferences. (Reeves C., Bednar D., 1995).

Thus, the process of establishing the quality of hotel services is left to the guests. The heterogeneity and complexity of the technical, organizational and personnel structure of a tourist service and a hotel service, as a material basis, as well as the degree of specialization of a hotel product reflect the level of tourist development in certain areas.

In this context I chose to apply a practical model accompanied by the research tool that has already been applied and tested through studies and research: SERVQUAL. The SERVQUAL method understands quality as a reflection of customer satisfaction. It is based on the presumption that a customer's satisfaction is a reflection of the difference between his expectations and the perception of the level of service required. The dimensions of a quality service, which are mentioned above, are evaluated as basic characteristics of the quality of a service from the customer's point of view. (Zeithaml, Parasuraman, Berry, 1990).

A standardized questionnaire was used for the measurements in which the statements are represented by five dimensions of a quality service. The objective of the study is to find out the opinions of some clients regarding 21 quality characteristics related to the services offered by the hotels in Mamaia resort, Constanța county. These quality characteristics were grouped into 5 dimensions of service quality: tangibility, availability, competence, security and empathy.

Two different customer evaluations were required in the measurement process; the first finds the level desired or expected by the customer from the hotel services, and the second reflects the customers' perception on the services offered by the hotel. The difference between the evaluation of expectation and perception is formulated through the so-called SERVQUAL score.

The structure of the questionnaire was slightly modified for the needs of research in the hotel industry - the questions from the initial SERVQUAL questionnaire were reformulated and, at the same time, some questions were omitted due to their low relevance to the hotel industry.

The questionnaire applied to the respondents contains 3 parts. The first part of the questionnaire specifies personal data related to: sex, age, education and occupation. The second part consists of the actual questionnaire consisting of 22 items, grouped in 4 dimensions. The last part offers the respondent the possibility to offer suggestions, complaints or compliments regarding the quality of the services he/she received.

The sample consists of a number of 870 respondents, customers of hotels in the Mamaia resort. Through them, the evaluations of a number of 12 hotels could be carried out. The questionnaires were applied between 05.08-05.09.2019. The questionnaires were completed by the hotel guests on a tablet before the check-in and after the end of the services, for a better accuracy of the answers.

It is necessary to specify that all 12 hotels benefit from a quality management system, being chosen precisely for this reason. Thus, hotels try to obtain information on customer satisfaction by applying these available questionnaires to be completed at the hotel reception. This method was chosen because the recovery of questionnaires placed in hotel rooms is minimal.

The aim of this study was to determine the quality factors of perceived hotel services that have the greatest impact, respectively, the least impact on consumer satisfaction.

In assessing the content of the questionnaires, respondents had to rate on a scale of 1 to 5 the services specified in the statements, taking into account their expectations of what a hotel offers in general and then of the quality of the conditions and services they benefited from. Score 5 indicates the highest level of expectations; score 4 indicates a high level of expectations; score 3 indicates an average level of expectations; score 2 indicates a low level of expectations; score 1 indicates a very low level of expectations.

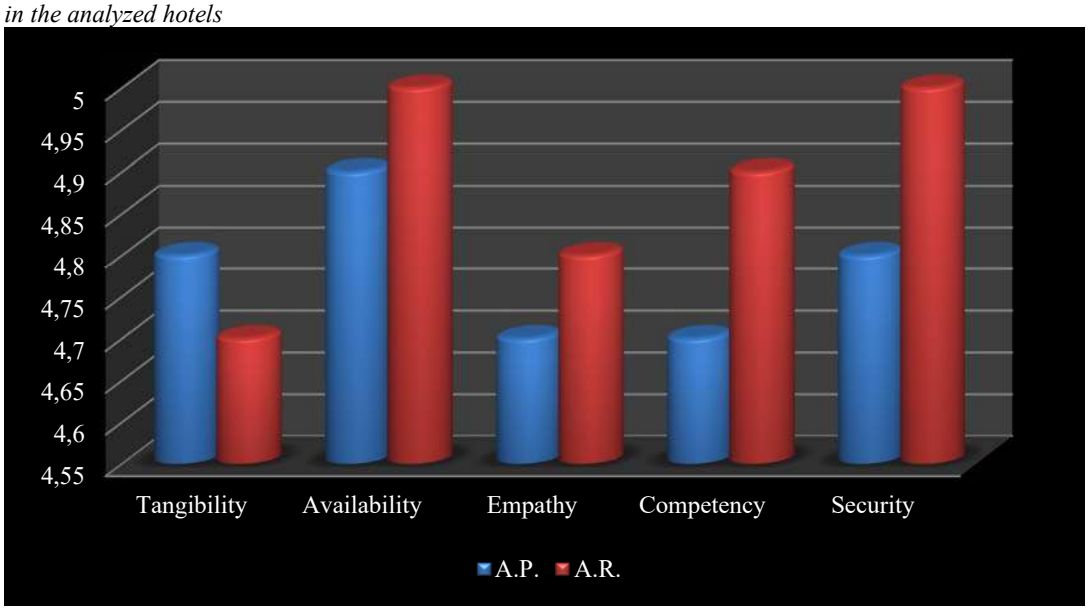
In the study were noted with A.P – the predictive expectations and with A.R. – the achieved expectations, averaging for each dimension. P- the perception on the felt quality was calculated by the following formula: A.R.-A.P. = P.

4. Results

The measurement of the 5 dimensions (tangibility, availability, empathy, competence and security) by the customers, showed that, on the one hand, hotel guests have quite high expectations from the hotel service provider and, on the other hand, their perception of the level of services offered is also assessed quite high. From the comparison of the average expectations and perceptions for the entire group of respondents we can see that all the attributes of a quality service are considered by the guests to be very significant.

We thus averaged the predictive expectations, resulting from the application of the first questionnaire on customer expectations regarding the quality of services offered by hotels and then the average results of the second questionnaire on customer opinions on the quality of conditions and services offered, representing expectations met. Following the calculations performed, we were able to determine a comparison of the predictive expectations with those achieved in terms of the analyzed hotel services (see Figure no.1).

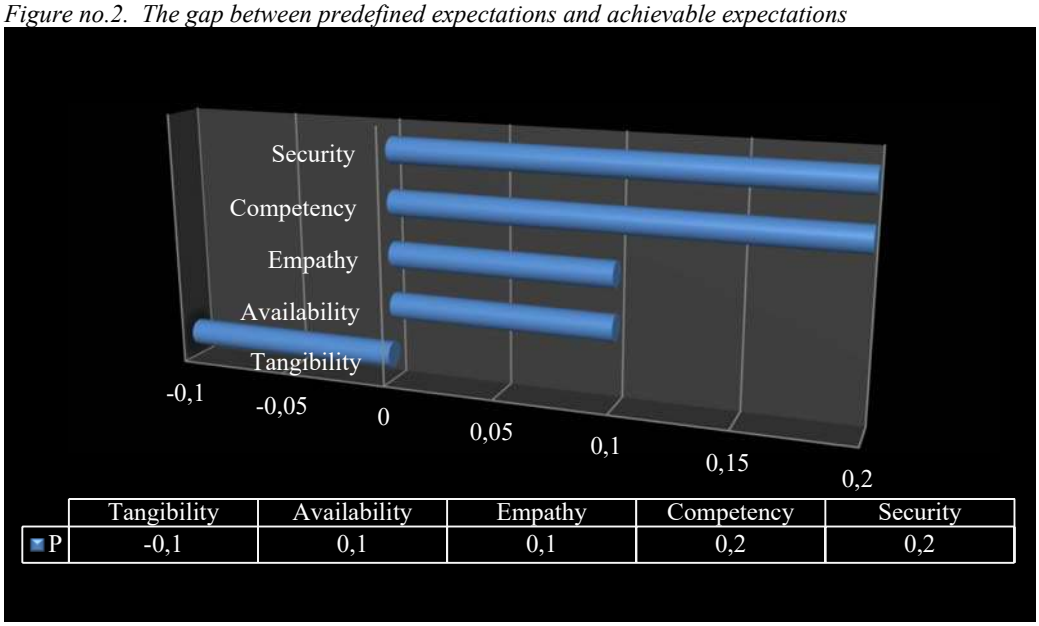
Figure no.1. Comparison of average predictive expectations and average expectations of quality services in the analyzed hotels



Source: Research data processing

If none of these attributes are triggered, the guests believe that the hotel has fully met them or even exceeded their expectations. Despite this, the difference between perception (A.R.) and expectations (A.P.) – the so called gap difference is significant. (Figure no.2). The largest gap is seen by respondents in the case of security and competence attributes, in the sense that A.R. is higher than A.P., which demonstrates that the satisfaction felt is greater than expected. There is only one dimension in which the predefined expectations were higher than the expectations, this being in the case of tangibility where there is an average negative gap of -0.1.

Figure no.2. The gap between predefined expectations and achievable expectations



	Tangibility	Availability	Empathy	Competency	Security
P	-0,1	0,1	0,1	0,2	0,2

Source: Research data processing

Analyzing the final SERVQUAL scores for each pair of statements found that the greatest satisfaction is observed with the behavior of hotel employees - guests positively assess the friendliness of the staff, interest in solving problems and appropriate language that evokes the trust of hotel guests. On the other hand, negative statements where expectations were higher than the services offered by the hotel are found in the size of tangibility. Guests have negatively rated the concordance of the services specified on the internet with the reality, hotel location and parking space. However, the hotel's modern furniture and facilities are positively rated as some of the tangible elements of the services they have received.

What is observed is that only 20% of the total claims regarding the quality services offered by the hotels that applied the questionnaire to its customers were evaluated negatively, representing 55% of the tangibility dimension. (see table no.1). This shows that all other dimensions were evaluated positively by the customers (80%). Because of the fact that the percentage of affirmations evaluated positively is higher, the results are that the clients are satisfied with the quality of the services they received. However, the hotels concerned must take into account the variables that have been assessed negatively and take action.

In what the statements regarding the expectations dimmension is concerned, it was noticed that the guests emphasize the following aspects of tangibility that they evaluated in a positive way: modern furniture and facilities, spacious and clean rooms, well-groomed staff. All other elements of the dimensions: availability, empathy, competence and security were evaluated positively.

Table no.1. Appreciation of the size found compared to thatexpected for each statement

Dimensions	**Quality apreciation**
Tangibility	
Modern Furniture	POSITIVE
Modern Facilities	POSITIVE
Spacious and clean rooms	POSITIVE
Attractive interior	NEGATIVE
The concordance of the services specified on the internet with reality	NEGATIVE
Neat appearance of the staff	POSITIVE
Placing the hotel in an accessible area	NEGATIVE
Existence of adequate parking space	NEGATIVE
The existence of a variety of foods and beverages	NEGATIVE
Availability	
Performing services without error	POSITIVE
Accurate and prompt information	POSITIVE
Very friendly staff	POSITIVE
Showing a sincere interest in the problems encountered	POSITIVE
Availability of rooms at a reasonable time	POSITIVE
Empathy	
Real interest in solving problems	POSITIVE
Promptness of staff	POSITIVE
Adequate staff language	POSITIVE
The interests of customers come first	POSITIVE
Competence	
Acquiring the necessary knowledge by staff	POSITIVE
Knowledge of a foreign language	POSITIVE
Security	
Behavior that expresses confidence	POSITIVE

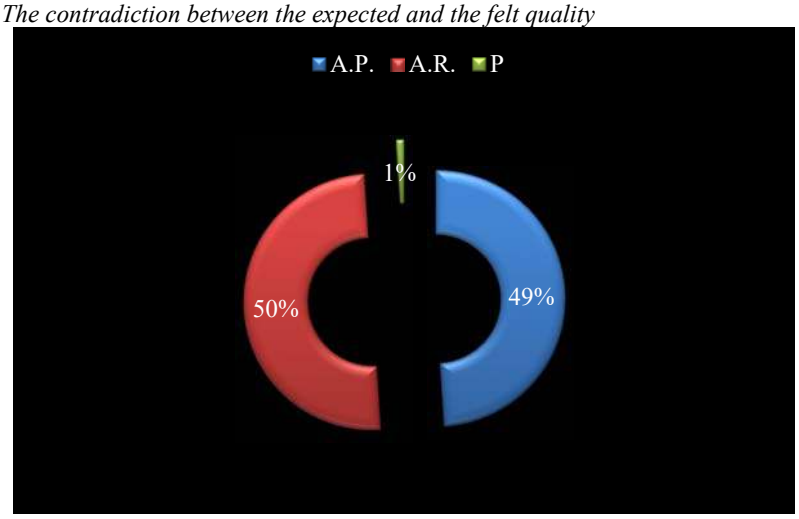
Hotel position	POSITIVE
Security at the entrance to the hotel	POSITIVE

Source: Research data processing

From the results of the SERVQUAL score for the individual dimensions, the total weighted SERVQUAL score for this hotel was calculated, reaching the value of -0.10. (see figure no.3). We can see that the contradiction between the expectation and the perception of the guests is minimal. However, the calculation of this score would be of much greater importance if we want to compare several mutual accommodation facilities, for example individual hotels in a hotel chain or to monitor the development of this index over time.

The analysis of the contradiction between the expected and the felt quality has a positive value regarding the negative gap of the tangibility dimensions, they also present the contradiction between the customers' expectations and the management's understanding or, possibly, the recognition of the hotels management about these expectations. It is considered to be the most important contradiction on the part of the service provider, precisely because it transcends the imaginary boundary between a provider and a customer.

Figure no.3. The contradiction between the expected and the felt quality



Source: Research data processing

The results of the analysis showed that within the dimensions, with the exception of five attributes, the expectations of the guests exceed the perception of the hotel management on these expectations. So, we can estimate that hotels may not understand the expectations and requirements of its customers correctly. As in the case of hotel guests and in the case of hotel management, the relative importance of the individual attributes of a quality service was found.

The most notable negative difference was found in the case of the parking space attribute, which is considered important by guests. On the other hand, this aspect took by surprise the management of the hotels which considers that it is not such an important criterion. This result shows a possible problem that could be reflected in low customer satisfaction.

Measuring customer satisfaction in terms of hotel location, parking space, concordance of services presented on the internet with the reality and diversity of food, which indicates the incorrect perception of hotel guests' expectations by hotel management. On the other hand, the total positive score shows that guests have lower expectations than expected by the hotel management. Thus, the analyzed hotels can exceed the expectations of the guests and this will bring them a higher level of satisfaction.

5. Conclusions

The application of the SERVQUAL method as a tool for measuring customer satisfaction in 12 hotels in Mamaia resort, allowed the measurement of the quality expected by customers and the quality obtained from the services provided by the hotel. The results obtained showed the existence of a positive gap between expectations and the satisfaction felt, the hotels offering customers in total, quality services, above customer expectations. This analysis also made it possible to verify the possibility of quantifying customer satisfaction by forcing the gap model, assessing the general applicability and presenting suggestions for possible hotel adaptations to customer requirements.

Hotels usually direct their services to different market segments. By applying the SERVQUAL model, it is possible to perform the analysis of the target segments, ie to study the degree of satisfaction of these different segments, in order to compare perceptions with customer expectations. For a hotel it might be interesting, and even recommended, to compare the results based on geographical segmentation (internal or foreign guests) or to compare the segment of corporate clients with that of other individual, recreational guests. The company can also obtain important information about the difference in expectation and perception through demographic segmentation based on gender, age, income and so on.

The advantage of the SERVQUAL technique is that different branches of the service sector can be used transversally. However, for the research needs of the hotel industry, the technique was easily adapted for this branch - some questions in the initial questionnaire were reworded and some of them were even omitted due to their lack of relevance to the hotel branch.

The application of such a method should be adopted by any hotel that wants to provide quality services to its customers. The quality offered must be one that meets the needs of customers and not one that reflects the opinion of hotel managers about what they should offer their customers. Measuring the satisfaction degree of a hotel guest is essential to give the hotel management the opportunity for continuous improvement.

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The Importance of Tourism Quality Management in the Integrated Development of Constanta Municipality

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Abstract

Quality management plays an important role in the tourism activity as a comprehensive approach that continues to be an inseparable part of the success and evolution of tourism and the development of tourist regions.

The objective of this paper is to highlight the emerging issues related to the dynamics of contemporary tourism in Constanța. As specific objectives, which we want to address in this paper would be: improving activities, modernizing the flow, technologicalization, sustainable responsibility and defining organizational characteristics. At the cognitive level, only the simple association of quality management with the development of tourist regions can provide positive results in terms of the theoretical approach of the notion in choosing, defining, mapping the tourist product or service.

Key words: quality management, tourism, development, Constanta
J.E.L. classification: M10, M19, Z30, Z31, Z32, Z38

1. Introduction

The tourism industry is an inherent dimension of contemporary social life and is one of the most complex industries in the world, involving the whole society. Thus, for many countries it has become a concern, a priority, because tourism supports economic growth through the contribution of currency, the revenues obtained contributing to the gross domestic product and new jobs are created. Through the prism of practicing tourism, the tourist resources are capitalized superiorly, the infrastructure is improved, the action of landscaping is intensified and at the same time exchanges of experiences and cultures are carried out.

The main purpose of this paper is to address emerging issues related to the dynamics of contemporary tourism in the city of Constanta. These issues refer to the sustainable use of natural resources, the dynamics of innovation and specialization models, the impact of tourism activities on regional economic growth and, finally, the relationship between tourism performance and regional sustainable development of Constanta.

Among the current tourism trends are the increase in the number of tourists but also in their demands, the concern for searching unique destinations and tourist products. In fact, there is an increase for the demand and supply of personalized tourist products, because the needs and desires of tourists differ. Among the concerns is the one for the environment, focusing on the idea of sustainability. The Internet plays an important role, asserting itself as a means of information, promotion and last but not least marketing in tourism.

There is an important relationship between local economic development and tourism, in the sense that tourism stimulates the level of domestic demand. The capacity of the economy to benefit from tourism depends on the availability of investments for the development of the necessary infrastructure, in addition to its capacity to provide the quality services that tourists demand.

From this point of view, the specific objective of this paper will refer to tourism quality management as an integral part of tourism in order to improve all tourism activities and services, offered by the Constanta region as an important factor of its integrated development. The way in which the resources of a region are assembled, coordinated, synchronized and enhanced at the level of a company is related to managerial skills, and if the result increases the company's competitiveness means that the company has distinctive managerial skills and therefore can facilitate the development of the area.

2. Literature review

In a globalized and modern world, tourism is recognized as one of the largest businesses, with the fastest growth and dynamics among economic sectors and attracting foreign economic activities. Many developing countries and regions have succeeded in restoring the economy with increased participation of the tourism sector. Tourism is seen as a tool for regional development to help create new local economic activities. According to the United Nations World Tourism Organization, worldwide and especially in developing countries, tourism is seen as a significant tool for promoting economic development and poverty alleviation as an alternative to other traditional economic sectors such as industrialization.

The concept of regional development includes, on the one hand, the dynamics of development of specific areas, understood primarily as a regional economic development of those areas, but also regional traffic, population or environmental development. There are many specialized articles on regional development that are based on exploiting the potential of these regions, and sustainable development must be based on reasonable regional development. In this context there is a conventional relationship between the enhancing factor - tourism and regional development.

Regional development meets the development needs of the people in the region concerned. Each region has its own development potential. For the most part, nature has offered those potentials for the development of each region. Many regions in any country have their own natural development capabilities, which countries have used in time for their development. On this basis, the natural environment for tourism is one of the gifts that the regions have. Tourism is a main strategy for the development of the region.

Although it is a driving force for growth, tourism depends on the level of economic development of supplier and host countries. In late countries, the development of tourism needs, as a precondition, the existence of an adequate economy, with the expansion of industries and the provision of diversified products and services. With these basic needs, tourism contributes to the economy by providing full potential benefits of employment, taxes, infrastructure and conservation of natural resources. (Firmino, 2007). Previous studies indicate that there are three main elements involved in the development process of tourism in general and regional tourism in particular, namely the economic, socio-cultural and environmental impact. All this must be taken into account to ensure an effective assessment of its sustainability. Such an assessment can be made using the triple bottom line approach to impact, commonly used in studies on the sustainable development of tourism. (Jurowski, C., Gursoy, D., 2004)

Understanding tourism as a potential promoter of the general development of the economy, especially of local economies, is increasingly consensual. Consequently, it is mandatory for this activity to take the values of enhanced sustainability. (Yasuo O., Shinichi E., 2013)

According to several authors, regional development is a process that is divided into two levels: external and internal. As for the external level, it includes the flows of the region with the external environment, i.e. the types of products and services, capital and information. On the other hand, the internal level refers to the internal differentiation, which includes the specialization of the labour force, the improvement of its capacities and, in general, the reorganization of the region. Consequently, tourism covers both these levels and creates flows for the region and the external environment, on the one hand, and contributes to changing its social and economic structure, on the other. As a result, tourism must be analysed in both aspects in order to adequately present its real impact as a factor of social and economic change. (North D., 1955) , (Loukissas P, 1982).

In this context, of the type of products and services offered on the tourism market, the qualitative approach to tourism is extremely important. The quality of tourism-related services, such as services in general, is mainly based on balancing customer perceptions and expectations. Successful service providers are able to respond and, whenever possible, exceed the needs and desires of consumers. (Tigu G., 2005)

Quality tourism can contribute to the sustainable development of a region by improving the competitiveness of enterprises, meeting social needs and preserving the cultural and natural environment. In order to be successful simultaneously in all these different areas at the level of tourist destinations, a global approach is needed, a touristic satisfaction concentrated and based on the principles of sustainable development, which is described as an integrated quality management (IQM).

Integral quality management is usually part of a strategy of tourist destinations developed for specific providers of tourist services, such as tour operators, travel agents, hotels, restaurants, etc. The specific tourist destination depends not only on the experience of the tourist service providers, but also on many other more general factors, such as kindness and hospitality, destination security, health and sanitary conditions and tourism debt management. (Ritchie, J., Crouch, 2003)

The impact of quality tourism on regional development can be positive or beneficial, but also negative or harmful. Whether the impact is perceived as positive or negative depends on the value position and the judgment of the impact observer. It is conventional for researchers and decision makers to note several positive and negative effects of tourism. Positive economic benefits usually include contributions to the local economy and job creation. The positive social impacts of tourism may include the revival or stimulation of traditional arts or crafts as a result of tourism demand. The positive effects on the environment of tourism can include income generated by the attraction for visiting natural sites, as well as an increased interest of visitors in the importance of the natural environment.

The negative economic effects of tourism may include rising prices for food, land and housing in tourist destinations. Negative environmental consequences include vehicle pollution, garbage dumped by visitors, habitat disturbance and deterioration of landscape features. Negative socio-cultural impacts can include the loss of cultural identity, especially when tourists are from the developed world and the hosts are in a developing country. This can be part of what is usually called the demonstration effect and happens when the inhabitants of a developing country imitate the activities of visitors who are from developed countries. (Mason P., 2003)

3. Research methodology

Coastal tourism is considered one of the fastest growing areas of current tourism, with its central attributes of sand, sea and sun. In order to create safe, stable and attractive coastal environments with clean waters and healthy coastal habitats, it is necessary to develop a sustainable, well-managed coastal tourism. Integrated coastal zone management is the best approach available to achieve this goal.

Although quality management is a relatively new approach, a few coastal tourist destinations are making real efforts in this direction. They have defined strategies with key partners, implement good practices and continuously develop monitoring and evaluation tools to adjust this approach to its economic, social and environmental impact.

Technological progress is the immeasurable advance that has facilitated in recent years the optimization and efficiency of quality management with the help of indicators that allow measuring the effects of actions and planning an adapted strategy that characterizes the tourism activity.

The present research aims to highlight the importance of quality tourism in the regional development of the Constanta municipality, with implications on the economy of the area.

Constanta County is located in the SE extremity of Romania, opening to the Black Sea. In addition, a distinctive feature of the county is the presence of natural marine lakes, rivers, fluvio-marine, lagoons, therapeutic lakes with sapropelic mud, ponds and recreational lakes. Constanta County has 3 seaports and 6 river ports. The port of Constanta is a seaport and a river port on the Danube - Black Sea Canal.

The predominant tourist profile of the Constanta Metropolitan Area identifies this sector as the launching engine of the local economy. The Black Sea coast is one of the oldest and most important tourist regions, which traditionally offers various shapes and types of attractions. The city of Constanta, located on the Black Sea coast, in the historical region of Dobrogea, is the oldest certified city in Romania with favourable prospects in terms of economic growth and territorial development.

One of the basic directions of the economic engine of progress of the component communities of the Constanta municipality, is the high tourist potential, ensured by the proximity of the Black Sea, with an impressive number of accommodation and public catering structures, the existence of natural lakes, with unique therapeutic properties in the world (Lake Techirghiol), which also facilitated the development of spa tourism in the area. A large part of the communities belonging to the region have an intense tourist activity, which every year generates economic growth, successfully representing a gateway for Romania towards the whole world.

Having as object of study the implications of the tourist activities in the regional development of Constanta municipality, we chose as barometer the numerical evolution of the tourist reception structures with accommodation function and of the tourists, with the main purpose to find out if the quality management contribution is a favourable one for the economic component. - tourism and at the same time the growth of the general economy.

Indicators chosen to analyse the economic implications of tourism in the Constanta region are: (1) the economic evolution of the municipality of Constanta, (2) the structures of tourist reception with a function of tourist accommodation; (3) catering establishments; (4) the number of tourists; (5) the evolution of profit and turnover.

The data collection was available with the help of official data provided by the National Institute of Statistics of Romania. According to the data provided by the Trade Register, Constanta municipality occupies the 8th place in the ranking made according to the turnover at national level. Turnover is considered to be a fundamental indicator of the volume of a company's activity and, obviously, it is always taken into account when evaluating a company.

Table no.1. Number of commercial units and turnover in Constanta municipality

Year	No. of commercial units	No. of hotels and restaurants			Turnover of hotels, restaurants (mill. LEI)
		Public	Private	Total	
2015	21,311	34	782	816	1,339
2016	21,459	32	800	832	1,450
2017	22,499	30	899	929	1,570
2018	23,255	30	964	994	1,851
2019	24,210	29	989	1,018	1,983

Source: made by the author based on INS data

In order to develop a profitable business, managers are required to make decisions and act quickly to cope with current economic and social constraints, which have an impact on the company's progress.

According to the analyses carried out in Constanta municipality, the income-generating activities that contribute the most to the growth of the economy and the development of the region are tourism, heavy and light industry, trade, transport. From the perspective of turnover, the companies from Constanta County amounted to 81,702 million lei in 2019. In the table below we presented the number of companies existing in 2018 in Constanta County, depending on the field of activity in which it operates.

Table no.2. Distribution of companies by branches of the economy in 2018

Activity	No. of companies
Agriculture	234
Mining industry	44
Manufacturing industry	347
Food industry	421
Water distribution	59
Construction	87
Commerce	361
Transport	126
Hotels and restaurants	994
Information and communication	61
Real estate	404
Insurance	34
Professional, scientific and technical activities	104
Administrative services	129
Education	121
Health	61
Cultural activities, shows	67
Other activities and services	327

Source: made by the author based on INS data

The technical-material basis represents the set of material means used to ensure comfort and all that is necessary for a tourist during his stay. Thus, the material base includes the accommodation and food spaces, as well as those that involve entertainment and relaxation, namely the spaces for recreation and leisure. All the components have an important role, they make up a complete and attractive tourist product, but the accommodation spaces tend to think that they pay more attention, because they practically become, for a certain period, the tourists' home. Also, the degree of development of those that are part of the technical-material base is seen as an advantage, the tourist resorts that benefit from a higher degree of development and better conditions, register a high tourist circulation, unlike those with a lower degree.

"Tourist reception structure with tourist accommodation functions means any construction or arrangement, which provides permanently or seasonally the accommodation service and other specific services for tourists". (INS-National Institute of Statistics)

"The number of tourist reception structures with tourist accommodation functions includes the tourist reception structures existing at 31st of July of the respective year, excluding those whose activity has been interrupted for a longer period of time, in order to carry out capital repairs or for important changes of the accommodation capacity and/or of the classification category ". (INS).

The data regarding the existing accommodation units in the period 2015-2019 in Constanta municipality are presented in the table below.

Table no.3. Number of accommodation units in Constanta municipality

Year	2015	2016	2017	2018	2019
No. of accommodation units	145	135	144	154	163

Source: made by the author based on INS data

The existing tourist accommodation capacity represents the number of accommodation places made available to tourists by the tourist reception structures, considering the number of days they are open. Places in rooms or structures temporarily closed, for lack of tourists, for major repairs or for other reasons are excluded. The tourist accommodation capacity in operation for the years 2015-2019 from the resorts in the coastal area, exclusive to the city of Constanta is highlighted in table 8.

Table no.4. Number of tourist accommodation operating withing Constanta municipality

Year	2015	2016	2017	2018	2019
No. of accommodation units	9,411,584	8,797,917	9,221,634	9,032,938	9,129,918

Source: made by the author based on INS data

The tourist demand represents the ensemble of the persons who benefit from products and services, respectively from the tourist offer, expressing their desire to make temporary trips outside the locality of residence in order to achieve this tourist consumption. In order to be able to carry out an analysis regarding the tourist demand, we considered the number of tourists, i.e. the number of arrivals, the number of overnight stays they benefited from.

Therefore, the number of tourists represents both Romanian and foreign tourists. Foreign tourists are those who do not reside in Romania, and who travel for a period of less than 12 months in order to visit and without carrying out another paid activity.

The total number of tourists (Romanian and foreign) accommodated in the tourist reception structures available during 2015-2019 in Constanta County is presented in table 11.

Table no.5. Number of tourists in the period 2015-2019

Year	2015	2016	2017	2018	2019
Number of Romanian tourists	762,419	908,588	982,604	1,040,699	1,085,120
Number of foreign tourists	29,620	34,399	33,683	35,345	34,281
Total number of tourists	792,039	942,987	1,016,287	1,076,044	1,119,401

Source: made by the author based on INSSE data

Regarding the arrivals of both Romanian and foreign tourists in Constanta, they represent every night that is spent by a tourist or for which a tourist is registered (because his presence is not mandatory) in a tourist accommodation structure.

Below is the total number of overnight stays of Romanian and foreign tourists in accommodation units in Constanta during 2015-2019.

Table no.6. Number of overnight stays in the period 2015-2019

Year	2015	2016	2017	2018	2019
Number of Romanian tourists	3,476,854	3,946,729	4,183,458	4,433,022	4,534,514
Number of foreign tourists	191,093	161,555	132,921	120,385	123,441
Total number of tourists	3,667,947	4,108,284	4,316,379	4,553,407	4,657,955

Source: made by the author based on INSSE data

For the economic development of the Constanta region, it is very important that the area is visited by foreign tourists. Most of the tourists who visit Constanta are Romanians, the proportion of foreigners not being negligible. The geographical area of origin of foreign tourists includes most European countries, as well as some non-European countries (Russia, USA, Canada, Israel). Most foreign tourists come from geographically close countries, traditional providers of tourists (Hungary, Poland, Ukraine, Serbia, etc.).

Table no.7. Arrivals of foreign visitors

Year	2015	2016	2017	2018	2019
Hungary	1,661	1,562	1,454	1,491	1,529
Republic of Moldova	1,633	1,918	2,052	2,330	2,523
Bulgaria	1,524	1,527	1,603	1,600	1,857
Ukraine	823	1,055	1,208	1,466	1,755
Germany	438	466	479	489	521
Poland	355	302	311	314	345
Serbia	352	427	502	543	576
Italy	324	425	460	468	521

Turkey	301	327	357	397	430
Israel	182	230	289	320	309
Austria	180	142	139	148	165
France	129	201	220	231	246
the UK	122	180	213	216	244
Other countries	1,084	1,002	1,023	998	1,004

Source: made by the author based on INSSE data

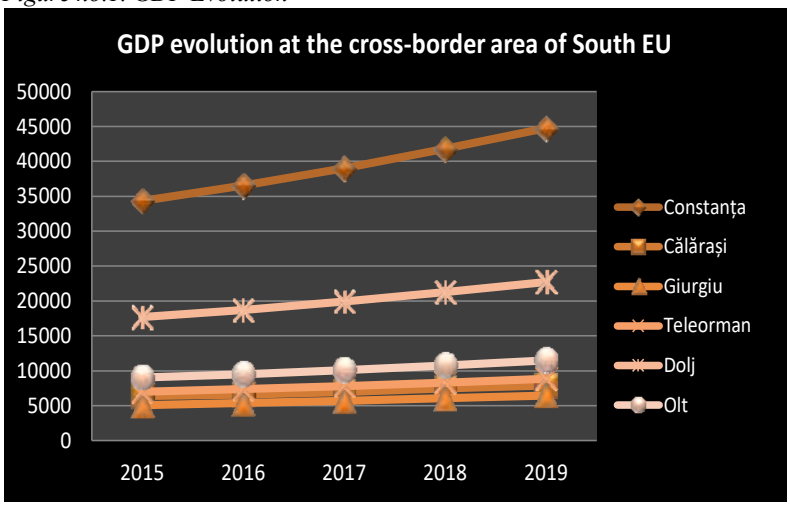
The tourism industry in the Constanta area has the capacity to generate a significant number of jobs. Also, companies in the field of tourism, respectively hotels and restaurants as well as other accommodation and food units generate a large part of the turnover. The local economy in this area benefits from the development of tourism. Tourists create an increased demand for services and consumer goods, thus stimulating the tertiary sector of the region's economy (services, trade, craft industries, etc.). Moreover, the tourist localities tend to have a more developed urban and service infrastructure.

The transport sector and the real estate sector are two other important branches that have to gain through the development of tourism, as we can see in table 6. We must also consider the indirect benefits obtained by registering a large flow of tourists that increases visibility and interest in the Constanta region. Thus, tourism in this area, through development strategies and policies can become a factor of economic growth with enormous potential. Tourism can easily contribute to the sustainable development of the Constanta region.

4. Results

The contribution of tourism to the increase of the gross domestic product and of the income from the Constanta area are because of the increase of the volume of revenues from tourism, as a result of the production increase, which can be seen in the figure below. Constanta registers in the period 2015-2019 a continuous increase of the GDP, reaching the highest gross domestic product compared to the other analysed regions.

Figure no.1. GDP Evolution

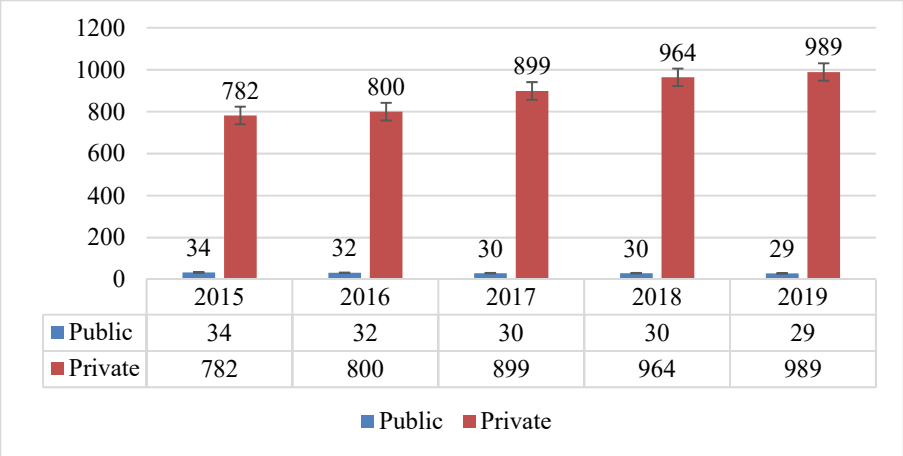


Source: made by the author based on INS data

The number of commercial units in Constanta municipality followed in the interval 2015-2019 an ascending trend as we could observe, the economic environment increasing by 207 companies during the 5 years. Thus, there is an increase of 26.5% among companies in Constanta, which can only highlight its economic development. What we can see in the chart below is the fact that most of the existing commercial units in Constanta are private and a very small number are public.

Regarding the turnover generated by the commercial units in the HoReCa field, we notice that there is a constant growth from 2015 to 2019. This is the sector that brings the largest contribution to the turnover of Constanta, while contributing to the positive dynamics of the economy. Also, restaurants and hotels represent a large part of the total number of existing commercial units in Constanta, as we will see below.

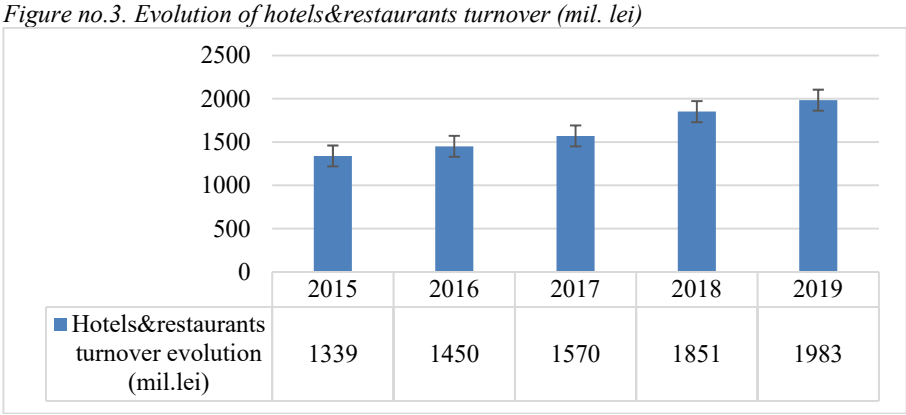
Figure no.2. Evolution of the number of commercial units



	2015	2016	2017	2018	2019
Public	34	32	30	30	29
Private	782	800	899	964	989

Source: made by the author based on INS data

Figure no.3. Evolution of hotels&restaurants turnover (mil. lei)

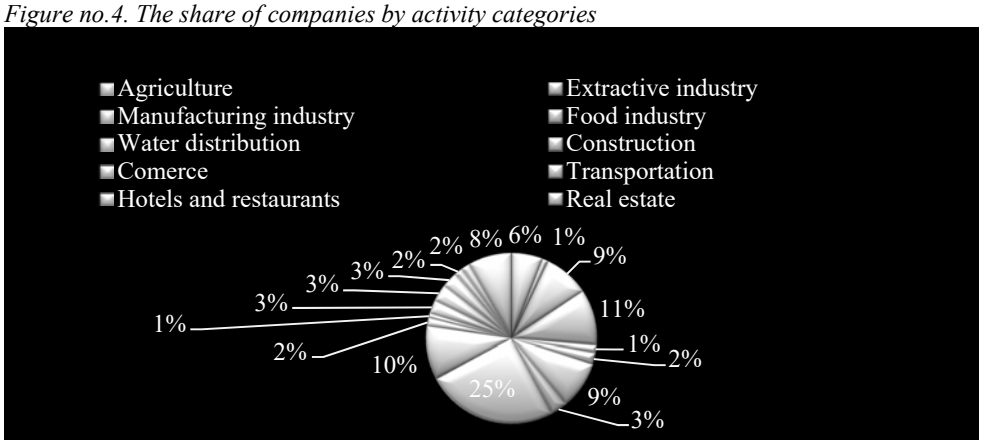


	2015	2016	2017	2018	2019
Hotels&restaurants turnover evolution (mil.lei)	1339	1450	1570	1851	1983

Source: made by the author based on INS data

The largest share of companies in Constanta has their businesses opened in the HoReCa field. Thus, in 2019, a number of 994 hotels and restaurants available for locals and tourists alike were registered. This has a special importance in the development of tourism in the municipality of Constanta, because it offers primarily a large number of accommodation and restaurants, as well as a diversity of them. At the same time, the HoReCa industry makes the largest contribution to the turnover of Constanta, followed by real estate and trade. These are the sectors that bring the greatest contribution to the economy of Constanta, but also of the entire county.

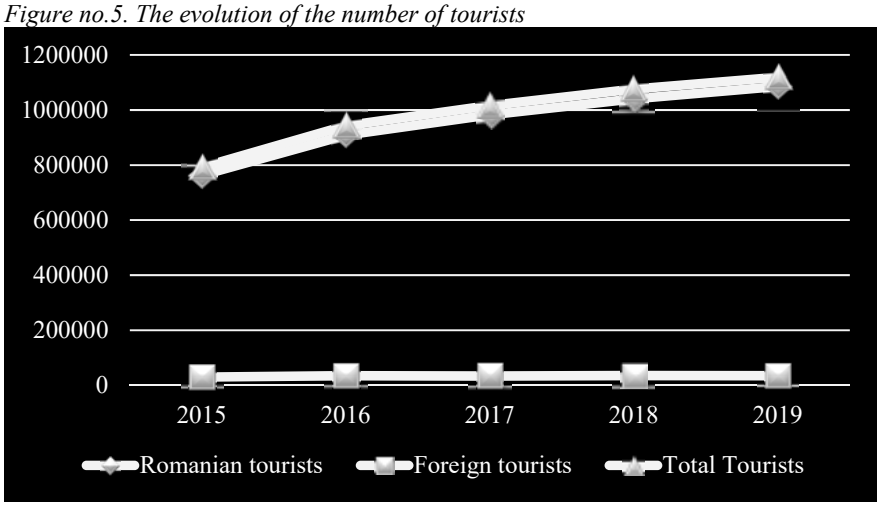
Figure no.4. The share of companies by activity categories



Source: made by the author based on INS data

Regarding the evolution of the number of tourists, there is an growth in terms of increasing the number of Romanian tourists, because the line representing foreign tourists does not indicate any obvious increase. Thus, in 2015 a total number of 792,039 Romanian tourists visited Constanta municipality, their number increasing considerably in 2019 and reaching 942,987. The total number of tourists is marked by an ascending line until 2019 when the number of tourists reaches 1,119,401.

Figure no.5. The evolution of the number of tourists



Source: made by the author based on INS data

5. Proposals and recommendations

Raising the general awareness of travel opportunities in the internal market must be a priority, make tourism products accessible to all, facilitate the development of a culture of tourism and create a safe and welcoming environment for visitors.

Quality issues have never been foreign to tourism. In fact, quality tourism has become one of the important issues of global tourism policy, given the rapid growth of the tourism industry, which has become one of the most developed economic sectors, especially after 2000. Preoccupation regarding the tourism quality has been demonstrated by various private organizations at all levels: international, national, regional and entrepreneurial, as well as by researchers in the field.

Considering the rapid and continuous growth of the tourist activity, both from the tourist point of view and from the economic, cultural, religious or health point of view, both from the past and from the foreseeable perspective, as well as its strong effects, both positive and negative, on the environment, economy and society of the countries that generate and receive, local communities

and indigenous peoples, as well as international relations and trade, we can say that the tourism industry is considered one of the most important, most diverse and the richest global industries.

Thus, the tourist product in the Constanta area includes the packages of activities designed in order to dose the services in various combinations, being oriented according to the nature and features of the tourist products offered for sale in this area. In this context, in order to increase the number of foreign tourists, the aim is to obtain a superior quality of the services offered by capitalizing on the elements of tourist attraction and obtaining a balanced quality-price ratio to meet both customer requirements.

Due to their quality, tourist services must satisfy the requirements of heterogeneous and complex motivations, customized, most of the times, at the level of each tourist. Therefore, the degree of satisfaction obtained from the consumption of tourist services is not only the sum of the individual consumption of component services of a tourist product, because it may be that, at some point, the assessment of the quality level of tourist consumption is negatively influenced by any inconsistency of a single component. That is, if at some point one of the needs or desires of the tourist does not find its qualitative equivalent in the offer of services, his dissatisfaction has not only momentary effects, but on the whole image of the quality of the consumed tourist product. (Neagu V., Bucuioc M., 2007, p. 64)

In the field of tourism, there is a permanent process of diversification and modernization of services, by implementing new types of activities by materializing the receptivity of tourism to changes in the structure of demand, consumption needs and quality requirements.

Therefore, the continuous improvement of the quality of tourist services must be a permanent concern of those working in the field to provide high-performance services that meet the needs and requirements of customers. The quality of tourism services needs to be continuously improved in order to make them more efficient, and for this it is necessary to establish and implement an adequate quality policy.

What determines the implementation of a quality management system in the units providing tourist services are the positive effects generated by it. Thus, quality management increases the chances for repeat visits in Constanta. Because, as we noticed after processing the data from the INS on the arrivals of foreign tourists during the period and their share, there is a decrease, which means that those who came once to this area did not want to repeat the experience.

Also, tourism management determines financial performance and at the same time attracts new customers. Avoiding expenses with resolving complaints is another positive effect of quality management. Its role is to provide better employee motivation and therefore higher productivity and performance, because employee motivation is closely linked to job satisfaction and performance. The positive effects of quality management are one after another: promotion, consistency and gaining new markets.

6. Conclusions

An indicator of the degree of impact of tourism on the economic prosperity of the Constanta region is the satisfaction of tourists with the tourist offer. Emphasis must be placed on the perception of the local population on the economic effects of tourism. The need for the most harmonious coordination and the implementation and control of all aspects of tourist destinations appears as a consequence.

The development of tourism activities must be based on sustainability criteria, it must be economically sustainable in the long run and ethically and socially equitable for the local population of the tourist region. Tourism must contribute to sustainable development through integration into nature, culture and humanity. It must respect the fragile balance, which is characteristic of many tourist destinations.

In conclusion, it is necessary to use the quality of integrated management in the tourist destination Constanta will offer it a competitive advantage in the market competition with the tourist destinations of the world, which are meant for the same target groups.

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Analysis of the Impact of Telemedicine on the Health System in a European Context

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Abstract

Accessibility, cost, availability and quality of medical services have always been an important topic in the European Union. The rapid development of high-tech technologies, software and hardware, have allowed the emergence of a new trend in the health system, telemedicine. The aim of this paper is to propose a detailed analysis of the openness of the European health system to innovation, in particular to the adoption of telemedicine solutions. Thus, the aim is to identify the barriers of this type of medicine by studying the literature. The application of the analysis in principal components highlights factors that influence the decision of a member state of the European Union to adopt or postpone this trend such as education, level of technology or demographic aspects. The analysis is completed by the study of telemedicine in Romania. The results of the statistical models capture the evolution of telemedicine, offering a general perspective on the spatial impact, emphasizing the specifics of the Romanian health system.

Key words: telemedicine, analysis in principal components, barriers, European Union, Romania
J.E.L. classification: I15, C38

1. Introduction

Telemedicine, a term that has become increasingly popular lately, is a solution for the dissemination of the medical service, which offers the possibility of access to health care for an increasing number of patients.

Telemedicine can be considered a remote medical practice that uses information and communication technologies and artificial intelligence. In other words, it is a different way of treating patients according to the same protocols in terms of quality and safety as in conventional procedures.

The new approach allows, on the one hand, finding solutions in the medical field in terms of population aging, and, on the other hand, in-depth monitoring of chronic diseases. At the same time, telemedicine is an important vector for improving access to healthcare, especially in disadvantaged areas. In addition to being useful in implementing national health policies, telemedicine can help communicate between national hospitals and those located in rural or least accessible areas. At the same time, depending on the available IT resources, strategies for the development of telemedicine at national level can be developed. On the other hand, an advantage of using telemedicine is training and education in health care. Indeed, it allows for better care closer to where patients live and contributes to coordinated care by health professionals and health professionals. It is also an important factor in improving the efficiency and organization of health care.

Even if telemedicine offers the possibility for medical staff to offer support to as many patients as possible, in addition to the multiple advantages offered by its adoption, there are certainly a number of impediments. If doctors want to practice in different EU countries, it is necessary to comply with the legislation in force in each country. There are certainly different policies and

regulations that may require medical licenses from doctors in each of the states in which they wish to practice or pay fees. Most likely, in this case, a possible solution would be to adopt a single medical license, at the level of the European Union, which seeks to reduce transnational barriers to the adoption of telehealth. In addition, the accreditation process requires a long period of time and a high cost of material resources.

The main objective of this analysis is to explore the various drawbacks involved in the evolution of telemedicine in the Member States of the European Union. By using the analysis in principal components s, we want a clear delimitation of the states based on factors derived from the barriers highlighted by the literature such as education, technological evolution, the state of the national health system, social and financial characteristics.

Also, the research focuses on the individual study of the dynamics of telemedicine adoption in Romania, which aims at a time evolution of the degree of acceptance and adoption of medical innovation by technology by private or public medical institutions, but especially the perspective of Romanian doctors. An objective of this analysis is to investigate in detail the vision of the health system regarding telemedicine and to determine what are the barriers that place Romania on one of the last places in terms of the use of telemedicine services.

The analysis of the concept of telemedicine and the barriers highlighted based on the literature, easily leads to the characterization of the European health system, the analysis of barriers in the adoption of telemedicine in the European Union and the evolution of this type of medicine in Romania. The last part of the paper summarizes the main conclusions of the article, offering new research topics.

2. Theoretical background

The integration of high-tech technologies in the health system was an opportunity in the evolution of telemedicine at European level. Telemedicine is defined as the way of providing medical services that aim to replace the traditional direct interaction between doctor-patient (or doctor-doctor) with a remote approach through technology. Looking from another perspective, Shaw (2009) considers that this branch of medicine is reduced to the use of telecommunications to provide a diagnosis, continuous monitoring, and for therapeutic purposes when the obstacle of geographical distance between the two actors, the patient and the doctor.

The emergence of new monitoring and diagnostic devices, as well as medical platforms has improved online communication between consumers and healthcare professionals regarding the exchange of information. These remote monitoring devices transmit real-time patient status data to physicians, patients or a third party, which is one of the reasons for the growing market demand from year to year. The development of the health system has led to the focus on the decision of public and private management to adopt telemedicine solutions amid increasing cases of chronic disease, cardiac arrest, asthma and cardio-lung problems (Market Data Forecast, 2019). Economically developed countries have adopted new technologies as well as alternative methods to provide superior medical services in order to reduce costs and improve quality. However, the expansion of telemedicine has occurred without having been planned in detail in detail based on a strategy, so developed countries have not yet managed to significantly reduce the costs of services provided or improve access to health care (Bali, 2018).

In recent years, telemedicine has become one of the most important centers of medical and scientific interest, amid the technological revolution and the opening of the medical system to innovation. Telemedicine solutions can be described as products and services developed on the basis of technology in order to improve the patient's health and reduce mortality through early detection of chronic diseases. The advantages of adopting these smart devices are represented by the increased efficiency of the services provided, the possibility to monitor patients remotely, facilitating access to electronic files, superior quality services and a balanced management of chronic diseases. According to statistics, most monitoring, prevention, analysis and diagnosis solutions have focused on cardiovascular disease, lung disease and diabetes (Almathami, 2020). Regarding the evolution of telemedicine, it is strongly correlated with the level of digitalization of a country, being determined by both the digital skills of patients and medical staff. Any teleconsultation required requires the availability of medical professionals, as well as a significant investment from the state for the

development of information systems (El-Miendany, 2017). Brodie (2020) developed a model that demonstrated that a more informed population that has access to online services such as health services, transportation, education is also correlated with economic development and the adoption of telemedicine services. Moreover, Wang (2012) studied the global health system for 50 years, concluding that both industrialized and highly developed countries will have to increase government spending on health in the context of the impact of barriers. in the long term, in order to ensure higher quality services and significantly increase life expectancy.

Also, no significant link was found between the adoption of the electronic record system and the adoption of medical solutions based on advanced technologies. However, in the case of hospitals with high technological capabilities, determined by the presence of a specialized intensive care unit, they are more likely to adopt this trend (Bali, 2018).

National legislation also plays an important role in the adoption of telemedicine, so a negative impact is brought by the decision of states that impose special licenses on cross-border providers, as opposed to the positive impact of the state's decision to ensure the same rights of access to telemedicine services as medical services that require patient-physician interaction (Becker's Health IT, 2020). Thus, as there are different regulations and laws at the level of each Member State, most of the medical devices on the European market are only certified at national or regional level. To reduce this inconvenience, in order to facilitate trade on a European scale, the EU has tried in recent years to promote uniform standards.

Another result from the literature highlights that population density is negatively correlated with the process of adopting telemedicine, and medical institutions operating in less competitive markets are twice as likely to adopt a telemedicine program.

3. Research methodology

One of the methods agreed by statisticians to reduce the dimensionality of data, increase the degree of interpretability and minimize the loss of information is the principal component analysis. This statistical method is based on a simple principle, the creation of new uncorrelated variables that maximize total variation. The new variables, the principal components s, are actually a linear combination of the initial variables. This analysis aims to obtain a graphical representation of European Union countries in a small space, through projection (Jolliffe, 2016).

The total variation explained indicates how much of the variability of the data was modeled by each barrier identified. Because the principal component analysis method is based on the correlation matrix, the variables are standardized, which means that each variable has a dispersion equal to 1, and the total variance is equal to the number of variables used in the analysis. According to Kaiser's criterion, only the eigenvalues with the property $\lambda_i \geq 1$ are retained, and according to the coverage percentage criterion we retain those components that explain the percentage variability of at least 80%. However, in practice, a value between 70% and 80% is also accepted.

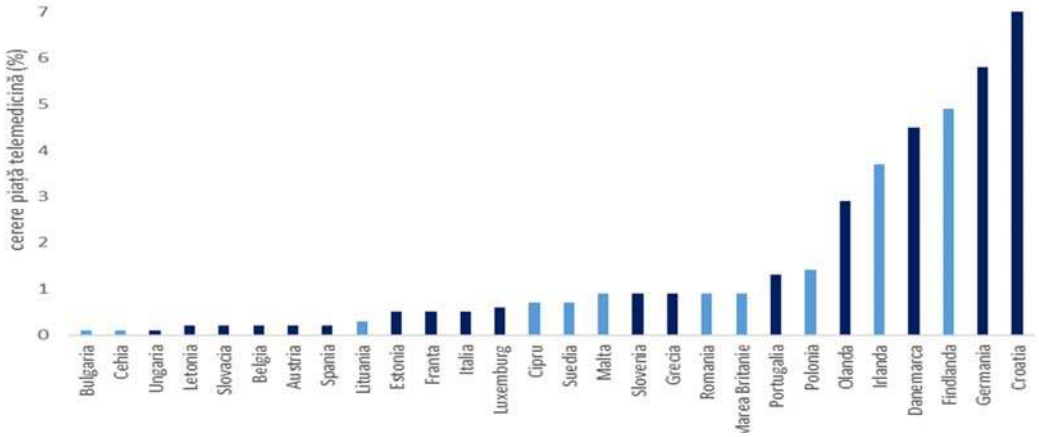
The methodological framework is based on surveys, national or European databases, which are used to characterize the impact of telemedicine in the European Union. Thus, the Eurostat, World Bank, The Global Economy or OECD platforms were used as data sources. Additional sources such as surveys conducted by EU Member States' statistical institutions or data in specialist articles were also used to support the analyzes.

4. Findings. Analysis of the dynamics of the telemedicine market at European level

4.1. Health system - evolution and innovation

The European countries that recorded in 2018 the highest revenue from telemedicine solutions and services are Denmark, Sweden, Germany, the Netherlands, Austria, Finland, France and the United Kingdom. On the other hand, countries such as Malta, Cyprus, Romania and Bulgaria have the lowest incomes from this form of medicine. These data are also positively correlated with government spending on health, indicating a strong link between innovation and a state's financial power to support it.

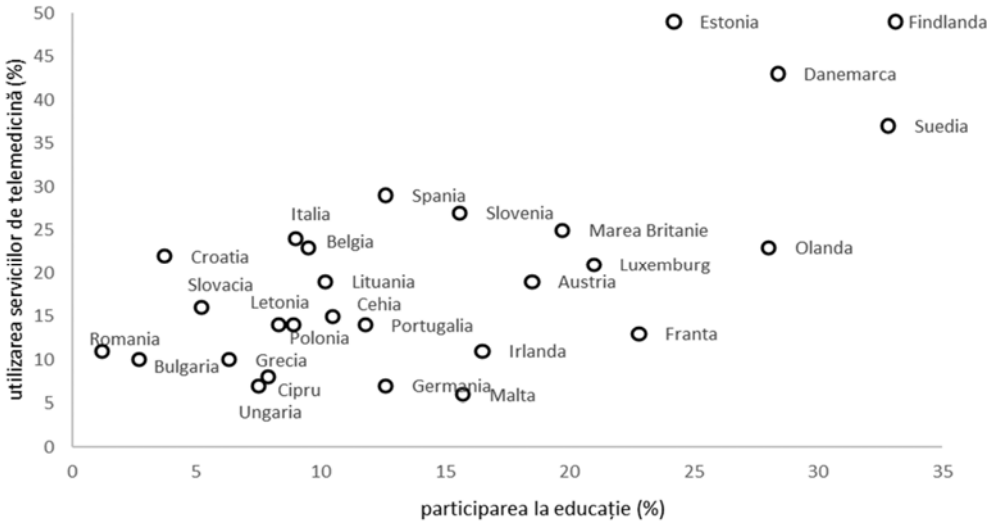
Figure no. 1. Telemedicine market demand under the existence of legislation, 2018



Source: Own processing based on data provided by the European Commission (pwc)

Based on data provided by the European Commission, Figure 1, the highest market demand for telemedicine services comes from economically developed countries, such as Croatia, Germany, Finland and Denmark. It should be noted that not all the great pawns of this market have developed adequate legislation for this form of distance medicine (represented by the dark color). Romania manages to rank in the first half of the member countries in the ranking of market demand, the need for innovation being strongly felt in every sector of the national economy.

Figure no. 2. Use of telemedicine services versus participation rate in education, 2018



Source: Own processing based on data provided by the European Commission (pwc) and Eurostat

A crucial factor in the evolution of telemedicine is the education system, which plays a decisive role in adopting innovation and marketing as an innovation leader. Romania and Bulgaria have the lowest participation rate in education, a value strongly correlated with the level of use of telemedicine services. Northern and Western Europe, known for the quality of the education system, mainly due to significant investments and successful results, hold most of the telemedicine market, whether it is telecardiology, teleradiology or teleophthalmology.

Also, at the level of the European Union, internet access continues to increase from year to year. Internet consumption is much higher for young people, leading to an increase in demand for telemedicine in Europe.

Regarding the health status of the population, according to statistics, diseases of the cardiovascular system are the leading cause of death, with an estimated 17 million deaths annually in Europe, 85% of which are caused by heart attacks or strokes. The current technology for monitoring the patient in hospitals has a short period of autonomy, which increases the difficulty of these devices to detect an irregular heart rhythm. It should also be mentioned that in 2019, according to Eurostat, the proportion of the population over 65 years of age reached 20% of the total population of the European Union. These considerations demonstrate the rapid evolution of telemedicine in the European Union, as well as the significant differences between the stages of progress of each state.

4.2. Barriers to the implementation of telemedicine

According to the literature, the barriers that appear in the process of adopting telemedicine can be grouped into several categories, such as: industrial and technological component, socio-demographic characteristics, educational system, financial field and market situation. Also, although these bottlenecks exist at the level of each European country, the severity of the impact is different. These obstacles not only influence the evolution at national level, given a market divided by several shareholders, but also affect the players in each country differently. Thus, based on these assumptions, it is difficult to quantify the impact of these shortcomings over time for all European states (European Commission, 2018).

In order to rank the member states of the European Union according to the impact factors in the adoption of telemedicine, we chose a method to reduce the dimensionality of data, using the base year 2018.

Table no. 1 Barriers to telemedicine considered for the ACP

Telemedicine services		
util_serv_tel	use of telemedicine services	Million Euros
venit_tel_loc	revenues from telemedicine	Euro / capita
Education		
part_educ	participation in education	% population
Level of technology		
acces_int_gosp	internet access	% households
ind_inov	innovation index	%
Demographic characteristics		
pop_den	population density	%
rt_pop_65p	population aged 65 and over	%
rt_mortal	mortality rate	%
dec_sist_circ	deaths caused by diseases of the circulatory system	%
Economic characteristics		
gini	gini index	

Source: own processing

The first stage of the principal components analysis is the investigation of the correlation matrix, which is the first justification for the need to use this analysis. Correlation coefficients suggest strong correlations both positive and negative, which demonstrates the usefulness of ACP application. (Table no. 2)

Table no. 2 Correlation Matrix

	acces int_gosp	rt mortal	ind inov	rt_pop_ 65p	venit_tel _loc	pop den	gini	part educat	utilize serv_tel
acces_int_gosp	1	-0.57	0.89	0.30	0.69	0.11	-0.39	0.80	0.50
rt_mortal	-0.57	1	-0.59	-0.41	-0.54	-0.31	0.43	-0.48	-0.16
ind_inov	0.89	-0.59	1	0.21	0.76	0.16	-0.26	0.87	0.45
rt_pop_65p	0.30	-0.41	0.21	1	-0.06	0.33	-0.67	0.20	-0.05
venit_tel_loc	0.69	-0.54	0.76	-0.06	1	-0.10	-0.30	0.69	0.48
pop_den	0.11	-0.31	0.16	0.33	-0.10	1	-0.10	0.07	-0.25
gini	-0.39	0.43	-0.26	-0.67	-0.30	-0.10	1	-0.31	-0.20
part_educat	0.80	-0.48	0.87	0.20	0.69	0.07	-0.31	1	0.69
utiliz_serv_tel	0.50	-0.16	0.45	-0.05	0.48	-0.25	-0.20	0.69	1

Source: own processing (SAS)

The variables represented on the first axis, on the positive side, refer to "innovation", such as household access to the Internet, innovation index, participation in education, income from telemedicine per capita and the degree of use of these services, being negatively correlated with the rate mortality.

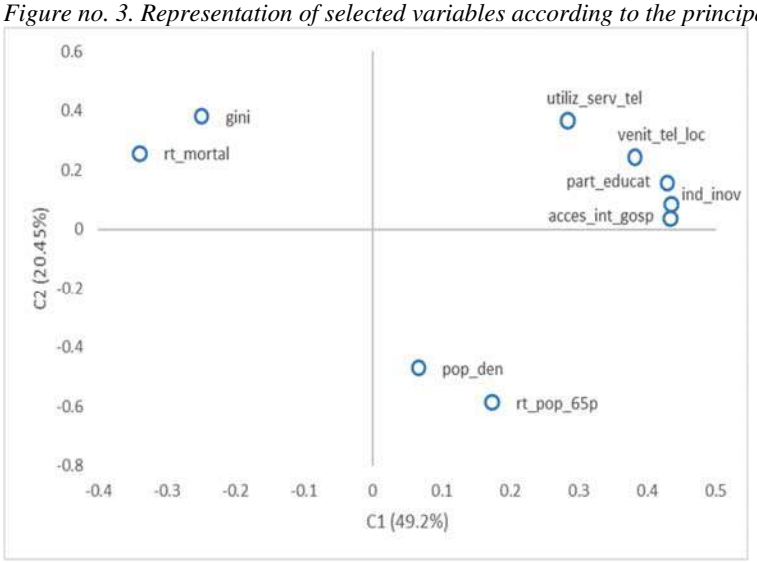
Table no. 3 The matrix of the principal components rotated

	C1	C2
	Innovation	**Characteristics of society**
acces_int_gosp	0.433679	0.035636
ind_inov	0.434867	0.083685
part_educat	0.428839	0.156667
venit_tel_loc	0.3819	0.24233
rt_mortal	-0.339677	0.25543
utiliz_serv_tel	0.283918	0.365425
pop_den	0.066648	-0.470064
gini	-0.2497	0.381757
rt_pop_65p	0.174014	-0.585645

Source: own processing

The second principal components refer to the "characteristics of society", the mortality rate, telemedicine services and the gini index being positive determinants, while population density and the phenomenon of demographic aging imply a negative impact.

Figure no. 3. Representation of selected variables according to the principal components s



Source: Own processing based on analysis in principal components (SAS)

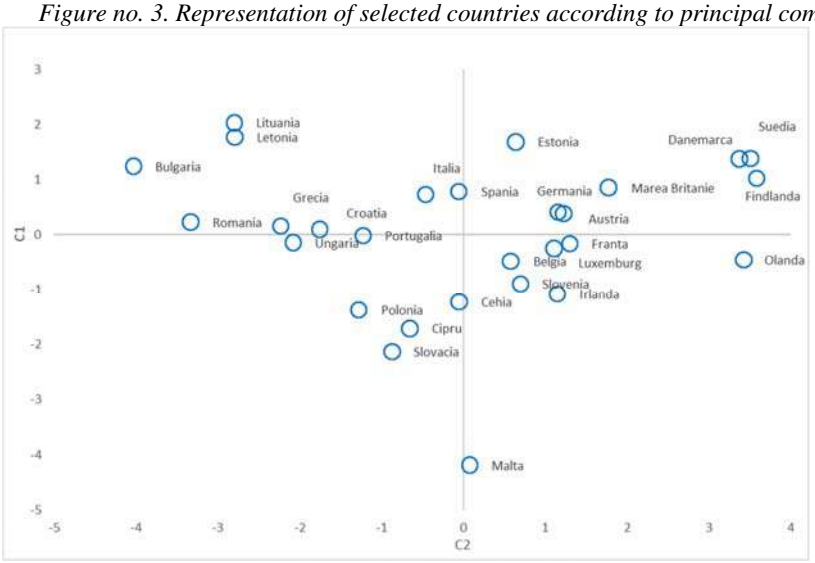
The graphical representation of the selected variables according to the principal components (Figure no. 3), highlights the fact that the factors that support the development of telemedicine are represented by the educational system, internet access and the presence of innovation. The first principal components demonstrate the negative influence of the increase of the income discrepancy through the Gini index, but also of the mortality rate. Also, from a negative perspective, but on the second component, the effect of population density is explained, but also of the increase of the population proportion of 65 years and over.

It is clear that the most developed countries, in terms of marketing of telemedicine solutions and services, as well as revenues in this sector, are the countries of Northern Europe and Western Europe.

Educational and financial barriers, the level of digitalization is an advantage for them, managing to overcome them through sustained investments over time in the education and health system compared to the rest of Europe. Eastern Europe (Bulgaria, Romania, Hungary) and Southern Europe (Greece, Italy) which are characterized by high levels of mortality and income inequality. These

require a weak development of the telemedicine system, to which is added a low rate of digitization, as well as an educational system still in development.

Figure no. 3. Representation of selected countries according to principal components



Source: Own processing based on analysis in principal components (SAS)

On the other hand, Malta is a particular case, being strongly characterized by the phenomenon of demographic aging and having a high population density compared to the rest of the EU member states. However, it has the lowest revenues from telemedicine, as this service is rarely used.

4.3. Analysis of the perspective of adopting telemedicine in Romania

Romania is still a member state of the developing European Union, as are the rest of Eastern European countries. Regarding the Romanian health system, there have been significant improvements in recent years, although insufficient investment in relation to medical demand remains a problem. Also, according to data published by Eurostat for 2019, 45.9% of Romania's population is still in rural areas, of which about 30% do not have access to primary health services.

Thus, telemedicine can become a solution for Romania, especially for the population in rural areas, where the health system is quite limited. However, an important barrier is still the lack of clear legislation on the practice of any form of telemedicine, to which is added the need for financial resources from the state to be able to purchase technological solutions in medical institutions. Panait (2004) argued in his research that Romania is not yet sufficiently prepared to support this phenomenon of innovation in medicine, given the outdated telecommunications infrastructure and internet access, lack of computers or basic digital medical equipment for treating patients.

In November 2020, the emergency ordinance (OUG) no. 196/2020 (for the regulation of telemedicine), and the implementing rules will be issued within 45 days. It regulates the medical specialties and the list of services covered by telemedicine services and the medical specialties and the list of services covered by telemedicine services. At the same time, in addition to the conditions of organization and operation of telemedicine, for each type of telemedicine service, the responsibility for establishing the quality of the telemedicine service and verifying its compliance as well as the manner of providing telemedicine services will be specified.

The services that patients can have faster access to the medical act, provided by telemedicine, thus officially regulated in our country, are: teleconsultation, teleexpertise, telecare, teleradiology, telepathology and telemonitoring.

5. Conclusions

The relationship between the adoption of telemedicine solutions and the level of economic, social and cultural development has been a topic of interest, which has intensified recently amid the success of this form of medicine, which involves the lack of contract between doctor and patient. The impact of the digitalization of medical services has occurred mostly in recent years and is expected, according to the forecasts of specialists in the field of statistics and medicine, to reach a point of maximum spread and use in the near future. Based on this surprising evolution, the performance of the medical system must be taken into account, as well as the barriers imposed at the country level.

In order to investigate the obstacles faced by a medical system, the analysis was used in principal components s, which segment the variables into components that illustrate technological innovation, demographic and economic characteristics. This study shows that economically developed countries have managed to overcome many barriers at European level, through financial support of the most important systems that affect society: the health system and the education system. Romania, one of the countries affected by the low participation in education and an unstable economy, is strongly affected by these barriers, having a very low per capita income from telemedicine, on the Romanian market there are still no major manufacturing companies.

In the current context, telemedicine may be a solution that could limit the spread of the virus. Thus, in recent months there has been the development, by the most important medical service providers, of online platforms that can offer modern medical solutions that could help the health system to manage the increase in demand for minor consultations.

Summarizing the results obtained, it is clear that the description of the evolution of the telemedicine services market is incomplete if it does not integrate an analysis of companies that offer technological solutions in the field of medical services. Therefore, it is desired to continue the study of the telemedicine market to analyze the main producing and consuming countries, as well as the impact of the economic, legislative, cultural situation of the country in the process of marketing products.

6. Acknowledgments

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Human Rights and Liberties - The Need to Protect and Guarantee Them in the Context of Globalisation

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Abstract

The paper aims at an interdisciplinary approach to a controversial aspect of globalization, i.e. the role of the state in respecting, protecting and guaranteeing the subjective rights of its own citizens in this context. The traditional duties of the state have changed under the impact of political-legislative, economic and social transformations. Questions arise as to whether the state can still fulfil its classical duties effectively and whether it will somehow disappear. This study examines the specifics of these rights and the prospects for their future protection, both nationally and internationally, highlighting the issues and challenges brought about by such protection in the globalization context. The research, through the methods used (comparative, logical, historical, teleological method, etc.) attempts at a critical assessment of the phenomenon, of the main theories in the field and questions the effectiveness of the current protection mechanisms.

The problem came to the attention of specialists only at the beginning of this millennium and continues to arise their interest.

Key words: fundamental rights, globalization, universalisation of rights, protection and guarantee
J.E.L. classification: K40

1. Introduction

Human rights, their specificity and the prospects of protecting them in the future, both at national and international level, are a complex issue, constantly generating more and more challenges. They can always be new research topics, equally generous and interesting. However, this entire problem of protection and its issue requires careful attention and research, as the importance of guaranteeing the related rights and further on the consequences impact the existence of all people, depending on the regulation and legal treatment given to them in a given society. And what about their situation in a global society?

It is easy to see, by merely perusing the literature, that there have always been attempts in the field of these rights - domestically and internationally - to establish regulations, but also theoretical constructions, all likely to try to define and characterize these right. However, the results in this respect have never been and will not be satisfactory. The complexity of human rights protection scope, in general, their evolutionary character, in particular, even the regressions of the rights in question are the causes thereof; more precisely, the very historicity of rights.

The different doctrinal approaches, even if valuable, contributing and clarifying specific aspects have also highlighted the growing need for a holistic interdisciplinary approach, in terms of their protection and guarantee. In this respect we can mention even that the phenomenon of globalisation and the digital age, the use of new information technologies, is placing the issue of guaranteeing and protecting the freedom of expression and the right to privacy, apparently in a hopeless

situation. We may add here the context of domestic and international security strategies, the phenomenon of terrorism and cultural differences in a multipolar world, and the legislative difficulties in this area, etc.

2. Theoretical context, terminology and research methods

The main tools of analysis were those specific to the theory of law (on some basic notions and concepts - subjective rights, rights and freedoms, legal norm, legal order, public order etc.).

Concepts, methods and principles specific to constitutional law were also used (especially in defining and classifying the rights mentioned as fundamental rights, etc. It was necessary to analyse from a scientific perspective the following law branches: international law, human rights international law, European law, legal protection of human rights, a comparative analysis was needed in several respects, including the comparison of different relevant regulations, the highlighting of similarities and differences, constant elements and variables between certain rights and even to other rights and freedoms.

The research methods used in examining the problems subject to scientific analysis were the following: based on the logical method (induction, deduction, etc.) we reached the following conclusions: the character of fundamental rights, character resulted from the general principles applicable to fundamental rights. Another method used in research was the comparative method - mainly to detect important similarities and differences between the matter.

Besides the legal method, the historical, teleological, sociological method, etc. were also used, as regards the historical evolution and the historicity of the analysed rights, the analysis of causes and effects, the interests of legal regulation, the effects of an effective protection of the liberties in question, the analysis of human goals as a finalist (order of finalities superior of man) etc.

The originality of the research carried out in the project also consists, in our opinion, in an approach to the topic through the prism of philosophical knowledge – that is the philosophy of law (with the natural law theory) and from a perspective of political philosophy - even tangentially. An approach to the geopolitical dimension and theories in the domain of security strategies is totally needed because they have major implications for the human rights protection, especially in our global and conflicting world.

3. The evolution of human rights in the broader phenomenon comprised in the generic name of globalisation

A subjective right does not have its ultimate foundation in the law, but in its reason (…). The right also exists outside the law… There may even be cases when the law is unjust; this does not mean that law does not exist… If we want to make science of law - said Mircea Djuvara - we must release the idea of law and outside the law (Djuvara, 1995, p. 231).

The whole course of human rights is identified with the history of struggles for the observance of human dignity by state authorities - confrontations that have taken various forms, from nonviolent, ideologically carried, to violent, brutal, generated by the denial of the most basic freedoms human beings in totalitarian regimes; they then moved on to another plane - that of parliamentary confrontations in democratic countries. Recently, some phenomena that obviously mark the evolution of these rights, also fall, naturally, into the broader phenomenon known today as the generic name of *globalisation*. This context of international factors implies an increase in both risks and opportunities for individuals and communities.

As for the opportunities - increasing interdependencies in the modern world: shaping new rights, the rapid movement of goods and services, capital, information, and the mobility of people. As for the risks, it can be seen, on the one hand, that the evolution of the world economy in the last decades under the sign of globalisation, has inevitably led to disorganizing effects, as political crises at national and international level: the need for security, social upheavals, migration and urbanization, social inequalities of all kinds - becoming more numerous and more expressive - all the latter affecting the human rights defence and guarantee.

New claims of disadvantaged social segments without a protectionist framework at national and international level from an institutional or organizational point of view have led to the inefficiency

of a legal order confronted with the urgency of new aggressive, undesirable, illegal behaviours. They endanger the right to life, liberty and dignity, including freedom of expression or the right to privacy and family life, etc. thus, in this context, insurmountable conflicts between certain rights arise. Today there is an entire debate around the balancing of a person's right to freedom of expression with the right to preserve honour or reputation of the person, with the protection of national security and the maintenance of public order. It should be noted here the need to regulate the media, even assuming some restrictions on its content.

There are justified opinions that the state is currently redefining its responsibilities, which determine country-specific actions, depending on the specific degree of connection to the global world - an issue that came to the attention of specialists only at the beginning of this millennium. Such an indicator - called the globalisation index, (is a composite indicator, which includes in its composition four dimensions: the political, technological, personal and integrationist dimension. In a ranking made for 62 nations, this index ranks first, as the most globalized nation, Ireland, in the same ranking, Romania was on the 38th place) (Djuvara, 1995, p. 231).

Another question that can be asked is what determines - in these contexts - states to observe the right, to defence and guarantee the subjective rights of their own citizens? States observe the law as they think this behaviour is in their advantage, as Alexe puts it (Alexe, 2009, p. 24).

4. The respect of international law is not optional; human rights between the Strasbourg Court and the Luxembourg Court

The observance of international law is not optional (Marian, 2007, p. 8). The observance of international law is necessary and is the rational solution, advantageous for each state, because not all actors on the international stage always find rational solutions to the problems they are called to solve. There are many examples, even recent ones, in which neither this logic, nor national laws, nor rights protection systems are taken into account in substantiating some of the internal or foreign policy decisions (Alexe, 2009, p. 25).

Highlighting the conflict between the right to expression liberty and other rights and interests, increasingly accentuated, offers not only a clearer picture of this area, but also a useful way to understand these conflicts (all the more so as it can be seen that there are a very large number of decisions of various courts in such cases).

Recent events have stated that both the state's executive authorities and the courts need training to learn to truly adhere to basic human rights principles. Here are some negative examples of recent actions by state authorities that have affected the right to free speech in our country: the finding as unconstitutional of the law decriminalizing insult and slander (Constitutional Court, January 2007), ill-treatment of several people and temporary detention of over 50 young people who protested against NATO during the summit of this organization in Bucharest (involved the Ministry of Interior, Police and Gendarmerie, Romanian Intelligence Service; April 2008), the adoption in the plenary of the Senate of a law proposing that radios and televisions present 50 percent negative news and 50 percent positive news (June 2008) (Ganea, 2008).

On the issue of the conflict between the privacy right and the expression liberty, the Court, in its decisions, not seeking to substitute itself for domestic jurisdictions, sets out a number of guidelines which national courts must attempt to solve such a dispute, but to leave a margin of appreciation at their discretion. ECHR judgments can be systematized on the problem related to the conflict mentioned in judgments concerning the conflict between the expression freedom and the right to private life of the persons engaged in political activities, other persons known to the public, ordinary persons, criticism of civil servants and restrictions imposed on medical secrecy (Chirilă, 2007, p. 660).

However, what we can deduct from the analysis of the evolution of the European Court jurisprudence as regards art. 8 of the Convention is the obvious tendency to extend the positive obligations of states as per this article and the independent items of the content of the right to privacy and family life, which are not expressly enshrined at formal level.

As regards the relationship between liberty of expression and the right to privacy and family life, in the case law of the European Court of Human Rights, from the analysis of the limits of the two rights and the points at which they meet, we can conclude that the European court has given

pre-eminence to one or the other of the two rights, depending on the particular situation of each case and the interests at hand. We believe that there is an obvious tendency in the Court's jurisprudence to maintain a balance between the two rights, which should ensure adequate protection of the values protected by both, although these values are almost irreconcilable (Iancu, 2013, p. 383).

However, it should be emphasized that, given the maintenance of two separate jurisdictions in the domain of fundamental rights, there is a risk of jurisdictional conflicts, which may lead to divergences concerning the content of rights rather than their existence, given that the Strasbourg Court and the Strasbourg Court Luxembourg, do not have identical aims, although their concerns are common. For example, it cannot be said with certainty that the Luxembourg Court will adopt the autonomous concepts developed by the European Court or that in accordance with Article 8 of the Charter of the European Union Fundamental Rights enshrines a distinct right to data protection, it will not be tempted to apply this article in the cases brought before it, to the detriment of art.8 of the European Convention on Human Rights (Iancu, 2013, p. 379). The constant caseload of the European Court treats honour and reputation more as limits of liberty of expression and, tangentially, within the right to personal image, a right that has been included in the content of the right to private and family life, protected by art. 8 of the Convention.

An analysis of the regulation of freedom of expression and the right to privacy and family life on the new Civil Code and the new Criminal Code, now in force, can show that if civil law can be criticized for these rights, the new Criminal Code, based on the principles established by the jurisprudence of the European Court, included among the holders of the right to domicile protected by art. 8 of the Convention and legal persons, as well as the crime of violation of professional headquarters. Art. 226 para. 4 provides for the causes of impunity, taking over the principle of "existence of the victim's consent" constantly established in the jurisprudence of the European Court.

It can be seen even from a brief analysis of the regulations regarding the liberty of expression and the right to privacy and family life - contained in the new Civil Code and the new Criminal Code - the existence of an obvious tendency, in legislative terms, to give pre-eminence to the right to privacy and family life, to the detriment of freedom of expression - especially in the media.

There are also issues regarding the right to information. A Member State may authorize libraries to digitize, without the consent of the rightsholders, certain books in their collection in order to make them available to electronic reading. EU member states may also allow users, within certain limits and under certain conditions, including the payment of fair compensation to rightsholders, to print digitized library books on paper or to store on a USB stick (Moceanu, M., 2014). The Directive 2001/29 / EC – mentioned in the CJEU judgment - aims to harmonize certain aspects of copyright and related rights in the information society, giving priority to the right to information.

The European Court of Justice brings another novelty in the matter, rejecting the European Union directive that allowed telecom operators to store data on private communications for up to two years. The measure came into force after the London and Madrid bombings of 2006, but is currently considered by the European Court of Justice to violate fundamental human rights. In justifying its recent decision, the Court considered that regaining these data and giving access to the national authorities to interfere (as per this directive) is against the defence of personal data. According to Bratu, such a retention and ulterior use without informing the user make data subjects feel their private life is under permanent scrutiny, according to Bratu the subject of a continuous surveillance (Bratu, 2014).

5. Attempts to define globalisation. Can subjective rights and natural human rights, still be protected and guaranteed in this context?

It is considered that within the **attempts to define globalisation**, the fact of considering it would be synonymous only with a trade between nations would be a huge mistake, because it would not represent its entire reality. Globalisation represents much more - a quantitative and qualitative leap of an entire international economic and legal order. Globalisation is „*a new era in which the old paradigms no longer apply. It is ... a process of expanding transactions beyond the borders of each country*" (Zaharia et. al., pp. 4-5) and, obviously, with all the consequences that

follow from this: the important aspect of the regulation of human rights (assertion of new rights, emergence of conflicts of rights, mitigation, conditioning or inefficiency of others). This process of globalisation, led and managed by economic and political forces, it also generates phenomena that lead governments to take new measures, even retaliatory ones, in the conditions in which the old national security systems prove more and more outdated or ineffective in the face of the inherent dangers that threaten everyone more recently (see the current global pandemic and new ones episodes of terrorism).

Can subjective rights and natural human rights, still be protected and guaranteed in this context? How can the existence of humans be considered from the viewpoint of law within such a globalized society? These questions must be asked more and more strongly because there is still, in contemporary reality, the risk of failure, if states do not have a clear role and an increased responsibility in respecting domestic and international rights and legal order. This risk of failure to protect human rights, as fundamental and universal values, can be repeated if states do not choose the right solution to strengthen the legal order by creating protection mechanisms, including sanctions and strengthening the founding principles to ensure respect for these rights, domestic as well as international law.

As Pop remarked, the lessons of such a past, usually forgotten, the failure feeling should not block our reason because there is a political and diplomatic solution, namely, to act in persuasion that the values shared are the same (Pop, p. 2).

A cause of the ineffectiveness of subjective rights is also considered to be the contrast between the anachronistic idea of the state as a military-strategic, independent unit and the existence of great powers and power blocs - for example NATO which qualifies each state differently according to compromises and the trans governmental characteristics involved in its operations and decisions (Held et. al., 2000).

Khan thinks that the prospects are not very promising. Besides the social or economic rights, along with the natural rights and freedoms are being threatened and in danger of being infringed. In his own words, "human rights are not just a luxury for good times" (Khan, 2008a).

Pop also thinks that the termination of the Cold War constituted a global reason of hope. Globalisation, internationalization expanded in terms of similarities. He adds: "Both European integration and globalisation have called for a common sharing of values, the latter being related to the Western model of civilization: the rule of law, human rights, inalienable private property, guaranteeing private initiative, market economy" (Pop, p.1).

Thus, the internal social environment, current of some countries, but also the international one, is paradoxical and conflictual; this demonstrates the generation of a serious and consistent global social crisis. In Khan's opinion, we need a worldwide solution to this general crisis, as for some people "this crisis is simply a matter of life and death" (Khan, 2008b). For example, new taxes have emerged, taxes - sometimes in the form of uncertain legalizations - other times social policies are inadequate, in principle to reduce social conflicts between extremes of inequality. It is, in short, a discriminatory and unfair regime, to which must be added that these facts, just briefly mentioned, do not only devastate society in one country or another, but that these quantitative and qualitative differences are present throughout the entire society.

There are also authors who speak of the demise of human liberties and rights (Douzinas, 2009) or of their necessary limitation after September 2001 (Balahur, 2014, p. 4), after repeated terrorist attacks brought about by the freedom of expression (Charlie Hebdo) or the current pandemic. And that's because humanity is not one and the same. How can we understand this paradox - that not all people have humanity in a world of human rights? It discusses the metaphysical status of rights, their universal or regional substantiation, as well as their political, ideological import. It is more or less argued that human rights provisions, in particular, are general and abstract, that the classic example of the „right to life" - which opens most human rights bills and human rights treaties - along with his statements - do not answer questions about abortion, the death penalty, euthanasia or even whether this right protects the prerequisites for survival, such as food, shelter or health care. It is also considered that in most cases a human rights claim is the beginning rather than the end of a dispute over the meaning of the right or its status with respect to the conflicting rights and any moral, political or ideological considerations inevitably conflict with legal arguments, influenced by the ideological, political or moral position of decision makers (Douzinas, 2014).

6. Conclusions

Along with the process of human rights *universalisation*, of their becoming international, global standards, a process of contextualization can also be observed - in the sense of regulating an ever-widening list of concrete rights, but also of concrete categories of persons and groups (Balahur, 2014, p. 8). Nowadays, in the context of the current pandemic, seen as a world crisis we can even speak of people or so-called quarantined or infected groups of people, etc. But it also obvious that more or less optimistic human rights scenarios, such as the right to health, the right to life, including privacy, the right to free movement, the right to work, etc., are still based on the idea of sovereign states, but endowed with minimal autonomy. In this way, the facts are retained and sometimes solutions are proposed - even the construction of a new democratic order that is necessarily appropriate to these new conditions and requirements. All in all, a meditation is needed on the fundamental problems of political life, represented by the classic debate on globalisation, namely: who regulates or governs, in whose interest, for what purpose and by what means?

Famous authors try to end the issue by proposing a new policy and world order for the century. XXI - a global pact for a cosmopolitan social democracy, for all those who feel intrigued, confused or simply without a protection of rights, distracted by globalisation and its consequences (Held, 2000).

The rights and liberties described in the Convention are fundamental and, on the other hand, organised in a systemic manner. Violation or limitation of one often produces and affects the others, and if the violations and limitations become systematic they can have effects even on the constitutional legal order and the democratic character of the state in question (Held, 2000).

The issue of debates on the confrontations related to the relationship between universalism versus cultural relativism in the implementation of human rights remains open and is not at all foreign to the context of globalisation. On the contrary, it can be exacerbated or resolved; or however, the movement towards a new ideal must and is likely to continue.

Indeed, following the attacks at *Charlie Hebdo*, with recent reverberations (Radio Europa Liberă, 2020), public opinion wants more security. States have an obligation to protect their citizens, but not at the cost of abuse. However, mass surveillance as well as exaggerated limitations are inherently an abuse of privacy. The global trends in the protection of all human rights thus need an objective analysis of conflicts and crises all over the world and their devastating impact on human freedoms and rights (e.g. the conflicts in The Ukraine and in Syria, and the so-called Islamic State, the pandemic crisis, etc.), along with the causes, motivations or interests in question, etc. These issues certainly require the consideration of the opinions according to which the defence of the *freedom of expression, freedom of movement, the right to privacy, personal data, the right to life, health, the right to education, etc., versus propaganda and misinformation,* it is more necessary than ever in the context of the current pandemic. The triumph of these rights and freedoms is all the more necessary because, as has been noted in the doctrine *World War II was unleashed and fought under the auspices of misinformation and manipulation - fertile ground for conflict* which serves certain interests and not human rights.

What is certain is that the world is changing and its perspectives are trying to focus on two dimensions that are essential to people's lives: democracy and security. In an attempt to look to the future, the idea is that the next few years will be the first real test of globalisation.

It follows that the main idea to be taken into account in the protection of these rights is that the system of guarantees is a consequence of the binding nature of the right. The right is ordered to effectiveness – „given" which does not belong to its essence. Thus, certain conclusions are unequivocally imposed: the non-application of the guarantee system does not destroy the right, although sometimes it can leave it inoperative. More precisely, if a norm or a natural right is not assumed by the right guarantee system, the norm continues to be valid and the right continues to be due, but outside the existing legal framework (due to unfair behaviour, that right does not will find support. It will be valid, but not effective - in case of non-compliance or violation of it).

The inoperative nature of the guarantee system (inefficiency) can make the norm ineffective, but it does not invalidate it - e.g. it may leave the person whose right is attacked or neglected unaided (and we are thinking here of all the negative consequences of mass surveillance on personal data and privacy, etc.); as a rule, no legal guarantee system can be claimed and can never be fully and,

above all, fully implemented; however, a legal guarantee system can be clearly ineffective, but such a lack of reason, intentional or not, does not suppress the cause of injustice, moreover, it can qualify as guilty those who are in charge of such a guarantee system.

There are as many legal guarantee systems, more or less efficient, as there are organized societies: for instance in the field of international, European and national law, we are witnessing a progressive establishment of these systems: the Convention and the European Court of Human Rights; the Charter and the European Court of Justice etc.).

It is often argued that the effective defence and guarantee of human rights are possible only in a democratic society that allows their transposition into positive law. Our opinion is that actually defending and guaranteeing these rights lies at the foundation of a democratic society, as democracy is impossible without them, and of the institutional guarantee of society members' knowledge and education in the spirit of their observance.

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On the Right to Privacy and Family Life in the Context of Globalization and the Digital Era

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Abstract

The paper assesses the importance of the UN in protecting the privacy right in the digital age and as a global leader in the privacy domain compared to other similar bodies. The study highlights the role of the UN rapporteur in increasing the level of comprehension on the topic and on monitoring the right to persons' privacy globally. The study can thus contribute to the achievement of national goals of improving the protection of this right, given that governments and international institutions are in a continuous race to keep the pace with technical progress and to regulate their impact on the said right. International treaties signal existing risks, and states' efforts to adapt legislation to the evolution of the digitization process must be sustained responsibly. The aim of the paper is to present through the methods appropriate to the research, the need for an evolution of the regulations in the field, because the current ones, have a too wide spectrum or are a few steps behind the new technologies that must be controlled.

Key words: privacy, family life, digital age, personal data, interference
J.E.L. classification: K40

1. Introduction

The topic of this paper can be included in the broader field of fundamental social (politico-legal) research, and the novelty in such a field, as well as the complexity of a topic about the right to have a private life and family existence presuppose the very mark of evolution and their dynamics essential for the development of the human personality. Today, globalization and digitalisation, the use of new technologies of information seem to put the guarantee and defence of the privacy right in a hopeless situation. Let us add here the context of domestic and international security strategies, the phenomenon of terrorism, the current pandemic and cultural differences in a multipolar world as well as legislative difficulties in this area, etc. Human capacity to store, transmit and manipulate information has expanded, the increased speed of technological progress allows people all over the world to use new information and communication technologies, so that the organization, regulation and protection of rights go through major changes in the digital era.

2. Study of literature and methodology

Therefore, in addition to the use of concepts, theories, paradigms and methodologies used in the legal field, some of philosophical and political inspiration have been used, especially regarding the trends that are manifesting globally regarding the protection granted to the rights within the right in question, but also human rights in general.

It is noteworthy that all solutions meant to defend human life depends on the state will determination. If democracy is acknowledged as value, the state is not obsessed with control; if democracy is not taken into account, the state attempts to take command of communications. Also, according to Marga, the way in which population, private sector and states treat the changes to come will depend on social rules, legal contexts and national specifics, whereas privacy will be

under siege. (Marga,2016, p. 2).

The novelty of the topic can be seen as a relative freedom of expression and the defence of to privacy, as a research topic, is being discussed in the literature – in Romania and abroad - but more from the viewpoint of constitutional law, even with certain aspects of interdisciplinarity (for example, the work of Daniela Valeria Iancu, *Libertatea de exprimare şi dreptul la viaţă privată şi de familie* [*Freedom of expreesion and right to privacy and family life*], West University, Timişoara (thesis, coord. I. Vida), 2013; or the studies of Andreea Lisievici, Bogdan Halcu, Alexandru Stan, 2014, Vladislav Gribincea, Anastasia Pascari, Olivia Pîrţac etc.); (Alan Westin, Samuel D. Warren, Louis D. Brandeis etc.). However, there has never been an approach from the perspective of natural law science.

Obviously, no research topic can claim to be a complete approach, but each subject can in turn provide starting points for new and deeper developments. We consider that in the Romanian legal space as well as in the European one, it is necessary to have a more accentuated scientific preoccupation and approach, also in consideration of the natural law regarding the protection and guarantee of these rights in the digital age.

In order to clarify some aspects of the present legal regime of these rights, a comparative analysis was needed in several respects, including: highlighting similarities and differences, constant elements and variables between these two rights, and even to other rights and freedoms; comparison of different regulations in this area, and where appropriate, aspects of comparative law from the legislation of different European countries have also been used.

The research methods used in examining the issues under scientific analysis were based on the logical method (induction, deduction, etc.) and it was possible to deduce the character of fundamental rights regarding the right under debate her, deduced from the general principles applicable to the fundamental rights they have and some of their derivatives in some particular cases; the autonomous legal nature of the extensions of these rights, as in the case of the right to data protection. In the same way we proceeded to classify the aforementioned natural rights.

3. The right to individuals' privacy and life within the family. Several content issues

The above right consists of four distinct rights: *the right to privacy, the right to family life, the right to own domicile and the right to correspondence*.

On the other hand, some of these four rights have multiple values, some of which constitute independent rights, such as:

A. The privacy right refer to *personal image, sexual freedom, identity, physical and mental integrity, social privacy, personal data, environment*;

B. The family existence right protects the values related to:

1. the relationships that can constitute the life of one's family: a) the relations between the partners; b) the relations between parents and children; c) other family relationships;

2. the relationships that may arise from the right to the existence within the family in special situations: a) special situations of protection of the family life entitlement in the relationship between parents and children (custody of children, right to visit, placement, some restrictions imposed on parental rights, etc.) ; b) foreigners' life; c) detainees' life;

C. *Personal dwelling*, *secrecy and home inviolability guarantee* are defended by Convention's art. 8 (in the extensive interpretation of this notion - *dwelling, caravan, professional premises etc.* if in all these the person spends a large part of his or her private life). Within the particular right discussed, this protection has naturally been imposed, given that the home is a space of privacy whose protection is indispensable in any democratic society. The right to domicile is not to be confused with the guarantee granted to property and housing, but the latter can be indirectly protected together with that of home inviolability.

The defence of the inviolability of the domicile does not extend to the persons who establish their *home illegally* or in case of *terrorism.* As regards *domestic violence* we need to keep a balance between the diverse interests. However, the Human Rights European Court has combined *the home guarantee* with *the entitlement to decent living conditions*, and in many cases the problem has arisen of that *to a healthy environment* although the latter is protected and separated as a component of the right to people's secrecy of private life.

D. The mail secrecy and inviolability protection is a particular aspect of the privacy entitlement, which involves the defence of the secrecy of the relations established by individuals through all communication means. Like for domicile inviolability and the entitlement to the mail inviolability, it is expressly mentioned in the content of Convention Article 8. It should be noted that the protection afforded by the Human Rights European Court through the right to the inviolability of mail, has extended to various forms of correspondence and to a wide range of situations. As in the case of home defence, there is a series of confusions in terms, the jurisprudence of the European Court, through an evolutionary interpretation, has clarified both the content of the notion of correspondence and the situations in which this right can be invoked. Consequently, the protection extends both to classical written correspondence and to modern correspondence in the digital era. The freedoms protected are concerned both with the *interdiction to communicate* and with the *violation of the secret of thoughts expressed* between two or several persons. Particular attention is paid in practice to the correspondence of detainees - illegal interception or censorship – beyond the *ordinary and reasonable requirements* of life in places of detention. European jurisprudence has ruled that a control of the correspondence of detainees sentenced to life imprisonment for terrorist activities, without offering solutions to the cases where censorship may occur and without providing for an appeal against such a measure, violates the provisions of Article 8 of the said convention. The court always balances *the mail-related secrecy with the interest of defending public order and preventing crime* – estimated as a *necessary measure in a democratic society.*

4. Protection of the privacy entitlement in the context of globalization and digitalisation. Decision of the Council for Human Rights of the United Nations.

The United Nations Human Rights Council, noting the *huge technological leaps* occurred in the digital era, seeks to take some steps in order to identify and clarify standards principles, good practices as well as for the promotion and protection of the guarantee granted to privacy as well as to the life within the family.

In its Geneva Resolution (March 24th, 2015), the Council recalls *universality, indivisibility, interdependence and interrelationship of all the rights guaranteed to persons as well as to essential freedoms*. Notes the need to promote and protect all these rights in the context of the fight against terrorism, but in particular the entitlement to observance of private life, family, home and mail, as well as the protection of person's reputation and honour, etc. The Council considers the possibility of establishing and promoting a special procedure for this purpose, on the basis of international law, but also of procedural guarantees of effective internal accountability (provision of remedies, non-arbitrary examination of basic principles). on legality, assessing proportionality in relation to supervisory practices etc.) (Zbârcea *et al.,*2015, pp. 4-5).

The Council reaffirms the entitlement of persons to private life, according to which no individual shall be subjected to arbitrary or unlawful interference with his or her privacy, as stipulated in Universal Declaration's article 12 and in Article 17 of the Civil and Political Rights International Covenant. Recognizes thus that the exercise of the privacy entitlement is important even for the realization of the right to freedom of expression and to have opinions without outside interference.

The Council noted that the rapid pace of technological progress enabling people all over the world to use these ICTs and, in parallel, increasing the capacity of governments, companies and individuals to undertake data surveillance, interception and collection, acknowledges that this could lead to human rights violations or abuses, in particular the right to people's privacy. Therefore, it turns out to be a more and more complex and serious problem, which needs to be solved accordingly. Whereas some types of metadata may provide security benefits, others may disclose personal information and provide a troubling perspective, with a negative impact on society subject to group surveillance and / or interception, (extraterritorial also). The gathering of personal data, especially when carried out on a large scale, in large numbers, may infringe the exercise of rights in many countries (often in the form of blackmail / threats or harassment that lead to uncertainty, illegality or arbitrariness).

The interference within the right of individuals to privacy, consisting of justified public security concerns, also needs the protection of certain sensitive information, and the states must ensure full compliance with these obligations as per the international freedoms of humans. The Council also notes that the prevention and elimination of terrorism is a matter of great public interest, while reaffirming that States must ensure that any measures taken to combat terrorism are in accordance with their obligations under the law international law, in particular refugee rights and humanitarian law.

Therefore, the Council for the Rights of Humans within the UN emphasizes the following objectives:

- reaffirming the privacy defence entitlement, according to which no person will suffer any illegal and arbitrary interference in his or her private affairs and in the person's family, home or mail, as well as the right to protection of the law against such interference;
- recognising the *global and open nature of the internet* and the rapid advancement of information and communication technology as a driving force in accelerating progress towards development in its various forms;
- the need for the same rights that *disconnected* people have they also be protected *online*, including the entitlement of private life secrecy;
- *the decision to appoint a special rapporteur on the privacy freedom,* for a period of three years, whose duties will include (synthetically) the following tasks:

✓ gathering information on international developments in the entitlement to privacy, including challenges arising from the use of new technologies;
✓ submitting recommendations to the Council on promoting better protection against privacy in the face of increasing challenges in the digital age;
✓ reporting on any violations of the personal privacy provided for in Article 12 of the aforementioned Declaration on the freedoms people are guaranteed and in Article 17 of the Covenant discussed above dealing with the rights and liberties of all persons;
✓ receiving and responding to information collected by the UN and all its agencies;
✓ participating and contributing to any relevant international conferences;
✓ submitting an annual report to the Council and the Assemblee Generale of the UN.

So as to conclude, this is the first time in the history of the UN - almost two years since the well-known Snowden revelations related to mass surveillance programs – when a *rapporteur - independent expert* receives the task to monitor and investigate privacy issues and alleged violations of this right by the world's states, pointing to the UN's growing concern in the privacy issues.

E-mail must also be discussed and considered, together with problems regarding the *protection*, in particular, of *inter-individual labour relations*, in the fair, well-founded opinion that even at work, the employee enjoys a certain sphere of privacy towards the employer, so that he must enjoy a similar protection with regard to his personal written or electronic correspondence. In Europe, employers intercept private correspondence of employees, using secret computer monitoring software illegally; In Romania, some employees claim that their employers used private information in emails to harass them and it is estimated that more than 40% of multinationals and large companies use special software to intercept and control the flow of information in their companies, including what employees might write on personal *emails* or download to *memory sticks.* According to official statistics, no company in Romania monitors its employees. Because another legal obligation of employers is to notify the National Authority for the Supervision of Personal Data Processing (ANSPDCP). But the authority claims that it has no notification in this regard, instead, the sales of spyware have boomed. The Romanian Constitution stipulates that all correspondence is confidential, but does not differentiate between *private* and *work-related correspondence*. As monitoring software tracks all employee activity on the computer, not just private or business correspondence, you can see exactly what sites an employee visited during the program, what content they viewed, and how much time the employee spent browsing the Internet, but the deed is a criminal one, which is a violation of the mail secret nature (Benezic, 2011, p. 6).

Secret monitoring of employees, banned by European law, has been the subject of huge controversy in other countries, especially Germany, where large companies have been forced to pay fines of millions of euros because of it. German politicians have debated a new law on the right

to occupational privacy at the place of work. In order to benefit from the protection established by Convention's art. 8, as a first condition, the employee who receives and sends private correspondence using the employer's computer, must mark this correspondence with the mention that it is private. Lawyers specializing in the field believe that national authorities have failed to implement data protection laws, forgetting to clarify to people what rights and responsibilities it has, considering that domestic legislation is a mere copy of the European directive, as Manolea puts it (Manolea, 2015, pp. 1-2).

Another issue that arises is the one related to the effective search of professional offices and the mail inviolable character as well as the control of professional correspondence (lawyers, doctors, etc.). They are subject to general limits and special limits, in accordance with the legislation in force in the States.

5. Protection of health data

In a national legal framework, several notions can be found that are applicable to the concept of database, namely: register, personal data record system, etc. Thus, it can be said that databases are different, depending on the purpose and volume of information, which formed the basis for the creation of this database. For example, a database of patients belonging to a health unit, which provides a package of basic medical services and in which their personal data are processed, may contain information starting with name, surname, age, address, telephone, etc. ., until diagnosis, interventions and prescribed treatment, evolution, etc. Personal health data may only be processed for the purposes provided by law by or under the supervision of a medical professional.

Although, in most cases, stored personal information is used only for legitimate purposes, without other consequences, there are certain risks. If that information is inaccurate, outdated or disclosed to the wrong person, the damage caused can be quite serious (…). Data protection is a fundamental right, defended and ensured not only by the domestic legislation but also by European law. This right is described in the 8th article of the Charter of EU on Fundamental Liberties and Rights (the European Authority for Data Protection, 2009, p. 2).

As for the *European card and the national health insurance card* these are two distinctly regulated electronic documents. Personal information is usually printed on the card and stored in the card electronic memory: name and surname of the insured, the unique identification code in the social health insurance system, the identification number of the card, the date of birth, the term of validity of the card. Only at the request of the insured, the family doctor can write medical data on the health card. The activation and use of the health card is done approximately like in the case of the bank card. The pin code remains the property of the insured, which he must not disclose (National Office of Health Insurance, 2014, p. 1-8).

The Electronic Health Record (DES), according to (GD 34/2015) is an online document containing a collection of medical information about the patient, records of data collected nationwide from all providers of medical services with which the patient came into contact. The data is targeted for storage. It is performed, at the patient's request, by any doctor who has a qualified electronic signature. It takes about an minute to initialize an Electronic Health Record. Patients' access to DES data and information is provided in accordance with GD 34/2015. The file will support different data regimes depending on the user (doctor or insured) (Stan, 2015, p. 4).

At the same time, according to the automated information system, certain additional personal data can be stored in this information resource: biometrics data - blood type, sex, workplace or other data; the patient is the only person who has access to this file from anywhere, when the patient wants, by the passwords that the doctor who constitutes DES will hand to him. The patient can see who accessed the file, the time, the day and the IP of the computer from which this was done. The information in the electronic health record is structured in five modules: the Emergency Summary module, accessible to all doctors in order to perform the medical act, without the need for patient consent, and the Medical History, Patient Background, Documents and Personal data modules, accessible to doctors only with the consent of patients. In emergencies, the information in the Summary is very important to save the patient's life (RH, blood type, allergies to certain drugs, the diseases he suffers from, as well as any other necessary information), so that the doctor who provides first aid to make the fastest and most accurate medical decision. The electronic health

record is considered to be an instrument beneficial both for the patient and for the health system in Romania (Stan, 2015, pp.5-6.).

The interference in the secret nature of information and the compliance with the purpose aimed remain the fundamental principles in the evaluation of the data disclosure cases without the consent of the person regarding his / her state of health. Proportionality control will be accompanied by adequate safeguards against abuse in accordance with national rules.

6. Conclusions

Human rights, which include the entitlement to privacy and to have a protected life in the family, although they are natural rights, some of them defending many a value, can be limited by positive rules. The opportunities of the state to promote the identification of citizens with democratic, political and constitutional values increase as the defence of these values is done by sanctioning the acts of infringement of these rights, and limitation thereof by the most appropriate or fair measures, because these restrictive measures also raise the issue of interference with individual freedoms. The legal field addresses the issue of human rights in terms of protection, interference and responsibility in the field, more recently, and the issue of vulnerability of information and the risk of communication in the global information society. Although all human rights require a fair assessment in the global society, the entitlement to private individual life undoubtedly requires a new political and legal reconsideration and revalidation, being one of the most complex challenges in a global, cyber and intercultural space.

The European Court points out that privacy is the space where each individual is free to develop as regards his or her personality. Considering the new scientific discoveries and the advancement of high technologies, proper development and detailing of the subject matter of all human rights is required. The main problem is that in today's global societies, these new technologies should not be used against people and not to improve their quality of life or increase human access to knowledge. Without an appropriate culture in this area, there is currently this risk, and the rights of humans, especially the entitlement to freely express oneself, including on the Internet, the right to private life in the digital era, as enshrined in international law today, tend to be , practically emptied of content (Antonescu, 2013).

The Council in charge with the rights of persons under the aegis of the United Nations and the establishment of a new function (that of rapporteur - independent expert in charge of monitoring and investigating privacy issues) comes after the UN published the report *The Privacy Right in the Digital Era*, emphasize the negative impact of mass surveillance on the privacy defence. Not surprisingly, the resolution was promoted by Germany and Brazil, countries whose leaders were involved in alleged surveillance by the NSA (National Security Agency), and then supported by more than 60 other countries, but also by more than 90 NGOs. As a result, it is certain that the work of the Special Rapporteur will be an important one, constituting a UN concern, granting that appointed person a true global leadership in the field of privacy, with a much wider visibility than, for example the *Work Group for Article 29* from Europe or other similar bodies (Lisievici, 2015, p. 3).

In the new world of mobile, social and convergent channels, accountability is the fundamental component of any strategy anchored in the digital-global reality. It is also the reason why it was noticed that Google did not choose its *Don't be evil* motto in vain because, in such a connected world, where information has come to flow freely - the so-called information democratization to which the free internet has led - it is very easy to do harm or profit by playing (Bîrzoi, 2012, p. 2).

The ability to use digital media, but also to choose accessible content, is currently an essential quality for each of us. The lack of culture start to signify another thing, and, according to Neneciu, critical thinking is becoming essential (Neneciu, 2015, p. 3). Anyone can become an image vector today, and the unprecedented ability to make information viral urges us to pay little attention to the concept of media education.

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Good Administration in EUCJ Jurisprudence

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Abstract

The present study aims to explain the meanings of good administration and mismanagement. In our paper we will take as reference the cases found in the case law of the European Union Court of Justice regarding the fundamental right of the citizen to a good administration. The idea of this study is that a decision given by the EUCJ does not automatically lead to the annulment of the administrative decision. Any irregularity, any violation of rights, regardless of complexity, can be solved at the country level, thus demonstrating the progressive and democratic characteristics of society.

Key words: good governance, participatory management, the principle of subsidiarity, EUCJ decision.
J.E.L. classification: K40

1. Introduction

The idea of this analysis starts from the fact that many decisions of the EUCJ include clear information regarding the fact that the violation of one of the various rights that make good administration in the administrative procedure does not automatically make the decision illegal, as can be seen in the analyzed cases.

Before presenting the proposed case law, it should be noted that the provisions of the Charter of Fundamental Human Rights are addressed to EU institutions, and protect individuals and legal entities against actions of EU institutions that violate fundamental rights. When this thing is noticed, the European Court of Justice has jurisdiction to review the legality of the act which is the subject of the action in question.

The concept of good administration is regulated in several international instruments, for example, Title V of the Charter of Fundamental Rights of the European Union includes from article 39 to 46 the rights of citizens in the European Union, yet article 41 is the one that makes specific reference to the above concept. set. It also stipulates that when a national authority infringes the Charter on the implementation of EU law, national judges (according to the provisions of the European Court of Justice) have the power conferred by law to verify compliance with the Charter, given that this international instrument complements the national systems of the member states and the system of protection, guarantee of fundamental rights provided by the European Convention on Human Rights. It is well known that this right is not limited to the EU institutions, but covers all aspects of European Union law: as far as the institutions are concerned, article 41 is directly applicable to them.

Thus, the EUCJ clearly establishes an eloquent reference to the standards required for administrative action and the production of administrative decisions. The aim of the interpretative approach is to capture the concrete effect of all the imperatives imposed by the EUCJ regarding the consequences of the given decisions, given the way in which they are transposed into the law of the Member States.

2. Theoretical background

The theoretical differentiation between administrative and judicial procedures is most likely a crucial argument in favor of mitigating the effects of defects in administrative procedures, given that national procedures could be stricter than the minimum standards proposed at EU level. It should also be emphasized that, at first sight, the judge assesses the legality of the administrative decision and does not prolong the administrative action in the judicial phase. However, it must be acknowledged that, at this point, the cultures of administrative justice in Europe are probably very different, and the separation between administrative and judicial action is not always so strict (Dănişor, 2009).

This can be important globally, startinf from the administrative procedure that leads to a decision to the final legal decision. A simple violation of an administrative procedure does not affect the entire procedure if there are other steps that would compensate for the error (Munteanu, Rusu, Vacarciuc O., 2015). For example, in Sweden, the first instance provides environmental consent for industrial plants and indeed in this case it plays the role of administrator. In this specific case, there is indeed no clear line between pure administrative procedure and judicial procedure, but this is an exception. Countries with autonomous administrative jurisdictions (France, Germany, Italy, Sweden, etc.) have historically justified the development of administrative justice by the need of specific procedures when state authority is involved.

It is understood that, in this context, the judicial procedure can accommodate an ability to defend the general public interest, avoiding pure procedural annulments of administrative decisions. All these cultural differences are extremely important and a detailed assessment would require a thorough analysis of each national legal system. For the purpose of the demonstration proposed in this study, it is sufficient to note that in Europe there are supreme obstacles between administrative and judicial proceedings.

However, the differential treatment of public authorities, the violation of citizens' rights at national level, is less and less tolerated by citizens, who claim these violations in justice regarding human rights and citizens' rights.

Another aspect related to the development of this flexible EU case law is its impact on decisions taken by national authorities based on EU law. In this context, national courts are generally responsible for enforcing EU law in combination with national procedural rules, as EU law in most cases provides a framework with some possibilities to adapt to the national context..

The jurisprudence of the EUCJ states a clear position regarding the violation of procedural rights, without the need to annul a decision. However, this clear position can be combined with another clear option of the EUCJ case law: The Court explicitly states that the exact effect of a breach of procedural rules must be governed by national law, as long as the principle of effectiveness is not affected. What does the effectiveness of EU law actually mean? We could consider that the effectiveness of EU law lies in material law - such as ensuring the effectiveness of competition rules or avoiding state aid (Douglas, 1985).

We can also talk about the effectiveness of laws on fundamental rights and principles, being able to take into account the desideratum of the right to defense (Andrițoi C., Lupșa F., 2014). However, while Member States may allow the exercise of the right of defense in accordance with the same rules as those governing internal situations, it must not be overlooked that compliance with European law in general is necessary, and in particular we must not undermine the effectiveness of the normative acts and provisions provided in the Customs Code. This reference for a preliminary ruling is made on issues relating to the interpretation of the general principles of Union law and the principles governing the application by the Member States of the common rules on customs duties.

The EUCJ 's approach to the violation of the right to good administration is therefore not straightforward, and the way in which national and European procedural case law is combined is only the first issue addressed for its implementation.

3. Research methodology

The EUCJ 's approach can be considered a pragmatic one: the right to good administration is a procedural right and a violation would have effect only if it has a direct consequence on the outcome (Bălan, 2000). This is a purely teleological reasoning, being also a legal technique of interpretation, very frequently used by the EU Court.

The research method used for this study consists of the case law analysis of several EUCJ judgments, which demonstrates that while Member States may allow the exercise of the right of defense in accordance with the same rules as those governing internal situations, these rules must comply to European Union law and, in particular, must not undermine their direct effect on national law

Comparison as a research method used demonstrates the process of knowledge that is based on the comparative study of various systems or subsystems of law, which seeks to find or highlight elements of similarity or difference between the phenomena or investigated concepts (Santai, I., 2002).

We also used the prospective method, which uses the substantiation of the adaptation of new normative acts and includes the interpretations given by the bodies that will apply the respective normative acts. Through these methods we aimed, on the one hand, to increase the role of the forecasting function, and on the other hand, to increase the role of the explanatory function (Whelan, 2006).

Currently, researchers consider that comparative law fulfills the following functions: the function of knowing national law, the normative function, the scientific function and the function of contributing to the unification of legislation (Spătaru-Negura, 2019).

The case study analyzed reveals the right not to be heard as a basic element of the right to good administration, which according to the cases trialed by the European Court, is a component of the right to defense. More specifically, the right of defense is then supplemented by a procedural right, the right to be heard, fully regulated in the provisions of the Charter, both in article 41 and in articles 47 and 48 of the Charter, thus covering all dimensions of the right to a fair trial. In the architecture of the above-mentioned regulations (articles 47, 48) can be seen their equivalence with articles 6 and 13 of the European Charter of Human Rights, where the subsequent rights to ensure a fair trial are analyzed in detail. Noting the major importance of the rights of defense, we cannot help but be surprised that non-compliance, violation, ignorance of these rights, has relatively small consequences in importance.

If a right is considered a fundamental right, we could conclude that this would lead to the annulment of the decision in case of violation of this right without further discussion. However, the process does not seem to be automatic. In other words, this means that a violation of a fundamental right is not always severe enough to lead to the illegality of a decision taken in violation of this right (Matei, Iancu, 2007).

The EUCJ 's position does not seem to be based on a general consensus, thus leading to different opinions among specialists. An idea contrary to the jurisprudence of the EUCJ revolves around the answer to the following question: if the right to good administration is categorized as part of the area of fundamental rights, then why is it possible to negotiate it, since scientific reason categorizes it as a right of defense? (Clement, 2018)

Thus, this ambiguity needs some clarification. The EUCJ makes a substantial difference between administrative and judicial proceedings. Since the framing of the right to good administration in de jure configuration of the right of defense is clearly established, it does not imply that the right to defense is considered automatically infringed in case of violation of the right to good administration during the administrative procedure (Mendes, 2009). This issue could be interpreted as referring to the fact that, during the judicial procedure, the rights of the defense could compensate for the de facto infringement during the administrative procedure.

Another case to the EUCJ, having as objective to make a bill for a preliminary ruling on the interpretation of article 41, analised above, of the Charter of Fundamental Rights of the European Union and of article 15 (6) of a directive issued by the European Parliament in 2008, supplemented by the provisions of the EU Council in the same year, with regard to the common standards and procedures applicable in the Member States for the return of illegally staying third-country nationals,

discusses the possibility of adopting public custody measures or extension of the residence permit, depending on the situation that becomes applicable to the case. There may also be a lack of cooperation of nationals in case of rejection of the extension authorization and the beginning of the forced return procedure, most often being invoked in this case the lack of guarantee of the right to defense or its flagrant violation thereof, knowing the need for application, recognition and guaranteeing to all people the right to be heard before taking any individual action that could harm their interests.

In another case, which refers to requests for a preliminary ruling, the need to recover a customs debt is prefigured, thus both the principle of respect for the rights of the defense and the right to be heard all involved parties being applicable.

In the present case, it is revealed that the addressee of the recovery decision was not heard by the Customs authorities before the decision was adopted, thus blatantly violating his right of defense. In order to determine the legal consequences of non-compliance with the above-mentioned rights, the situation of annulment of the decision taken at the end of the administrative procedure becomes applicable according to the Union law, which may lead to a different result, if no irregularity had been identified.

The right to be heard in all proceedings is enshrined not only in articles 47 and 48 of the Charter, which ensure respect for both the rights of the defense and the right to a fair trial in all judicial proceedings, but it is also enshrined in article 41 of the Charter, which guarantees the right to good administration. Article 41 (2) of the Charter provides that the right to good administration includes, inter alia, the right of every person to be heard before taking any individual action which would adversely affect him or her.

4. Findings

A serious problem in the implementation of EU case law is the proof of the fact. It is well established that the rules governing evidence are crucial in determining the outcome of a case.

The current case law of the EUCJ tends to be based only on the teleological argument, as I mentioned earlier: would the decision be different if administrative procedural rights had not been violated?

However, it is clear that, depending on the party who has to show no effect on the administrative decision, the balance between the parties is completely different. The EUCJ rightly rules out imposing on the applicant the need to prove that the decision would have been different if the infringement had not existed. Obviously, the applicant's request must prove that the effect would not make sense, since the administration could at any time claim that, being the one who took the decision, it ensures that the decision was not affected by the infringement!

An example that supports the ideas presented would be C-141/08 October 1, 2005 Foshan Shunde Yongjian Housewares & Hardwares Co. Ltd- Action for annulment of Regulation (EC) Regulation (EC) No 452/2007 of 23 April 2007 imposing a definitive disposal duty and collecting the provisional duties imposed on imports of ironing boards originating in the People's Republic of China and Ukraine (OJ 2007 L 109, p. 12) imposes an anti-dumping duty on imports of ironing boards manufactured by the applicant (http://curia.europa.eu/juris/document/document_print.jsf;jsessionid=9ea7d2dc30d59ed6681292d644738b0c9ea7147b7195.e34KaxiLc3qMb40Rch0SaxuSchv0?doclang=EN&text=&pageIndex=0&docid=112203&cid=733741).

Furthermore, according to the case-law of the Court, the appellant cannot be asked to show that the Commission's decision had a different content, but simply that such a possibility could not be ruled out altogether, as he would have been better able to defend and there was no procedural error.

But what does the phrase "that such a possibility cannot be completely ruled out" refer to? Taken literally, the expression leads to an impossible proof for the administration. This idea would save administrative decisions only in cases where the violation is "external" to the decision-making process itself or if the appellant does not indicate what information could be provided to the administration (Marinica, 2011).

However, it should also be emphasized that the wording of the Court emphasizes the procedural aspect in relation to the person's ability to defend himself. In practice, an appellant who claims that, not being heard in the administrative procedure, is not able to try to convince that the administration could fall into this category (Sudre, 2006).

Thus it can be offer as example the interesting discussion of the role of oral hearings in the opinion of General Advocate Wahl in Case C-154/14 P. '79 Judgment of the Court (Fifth Chamber) of 16 June 2016, SKW Stahl-Metallurgie GmbH and SKW Stahl -Metallurgie Holding AG v European Commission - Appeal - Competition - Agreements, decisions and concerted practices - Article 81 EC - Markets for calcium powder, calcium granules and magnesium granules in the European Economic Area - Pricing, market sharing and exchange of information - Regulation (EC) No 773/2004 - Articles 12 and 14 - Right to be heard - In chamber meetings. (http://curia.europa.eu/juris/liste.jsf?num=C-154/14&language=EN)

We can argue that there is a difference between considering whether a party would have been better able to defend itself, whether it would have been granted access to the entire file and, on the other hand, whether it would have been granted a hearing.

There is also nothing to prevent a party from submitting other relevant confidential information to the Commission during such a meeting as not previously alluded to. Therefore, if there is a right to a hearing in the Chamber before the Commission and if an oral hearing is held only once - as in the present case - then the party who has been entitled cannot be considered to have been heard.

This is equivalent to a court hearing: it can never be ruled out that, by pleading, judges could change their minds!

5. Conclusions

Obviously, there is a tension between the teleological approach, which concerns only the outcome of the process, and an approach that highlights the role of procedure relieve in the jurisprudence of the EUCJ. The case of Foshan Shunde Yongjian Housewares & Hardware Co. Ltd v Council of the European Union, is an eloquent illustration of this tension.

It can be considered that, at least, there is an obligation on the appellant to show that he had a number of arguments to put forward. This could be seen as a dialectical reasoning in the trial process: the appellant must provide some clues that the hearing would be a serious opportunity to defend the case. This first step would establish a presumption of usefulness for the hearing, and the administration should react and oppose to this presumption.

However, at this stage, the observations are not fully supported by the limited case law of the EUCJ in the cases presented and we should only conclude that further clarifications are needed from the Court of Justice.

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Euro Adoption in Romania: An Exploration of Convergence Criteria

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Abstract

The aim of this paper is to analyze the position of Romania towards the Maastricht criteria, starting from the assumption that meeting the nominal convergence criteria is no longer enough for the Romanian adoption of euro. The most significant risks that the artificially integrated countries must face after the accession to the Euro Area were identified, using a large number of economic indicators that were distilled in order to design the Romanian progress in the process. The Romanian entrance into the Eurozone emphasize its major cost: the loss of monetary policy independence. The current methodological approach is twofold. First, the nominal and real convergence criteria were examined based on one-point-in-time approach. Second, it was considered the Romanian people perception about the adoption of the euro currency in accordance with a sequence of key-events suggesting a significant change due to multiple abandoned adoption targets, Brexit event or the pandemic context.

Key words: nominal convergence, real convergence, Euro Area, Romania
J.E.L. classification: F15, F44, E52

1. Introduction

The European monetary integration is subject to a permanent debate in the Romanian context, the opinions being in the direction that meeting the nominal convergence criteria is no longer enough for the Romanian adoption of euro. If the cyclical economic events are not correlated among the Member States, the catalysts efforts transform into a significant risk the artificially integrated countries. In 2019 the euro currency celebrated its 20th anniversary, paving the way for the third Eurozone enlargement. Joining the Eurozone represents an important milestone for Romania, in its journey to achieve a long-lasting stability, but this decision must be well-founded and sustained by financial stability and sustainability of the Romanian fiscal position.

Thus, the main aim of the current paper is twofold. First, the nominal and real convergence criteria were examined based on one-point-in-time approach, assessing the present Romanian macroeconomic context and its readiness to join the Euro Area comparative with other candidate countries. In this sense, Croatia and Bulgaria have already reached the middle target regarding their participation in the EU's Exchange Rate Mechanism (ERM II), stage that is often seen as the euro waiting room. Second, it was considered the Romanian people perception regarding the adoption of the euro currency in accordance with a sequence of key-events in order to provide an analytical framework for the third Euro area enlargement based on the general people support and their potential to influence the political actors.

Until now, three euro-adoption targets were already abandoned (2014, 2015 and 2019) and the updated deadline assumed by the Government was 2024, according to the Convergence Program for the period 2019-2022. The current evolution of the macroeconomic context suggests that it is an optimistic scenario, due to the fact that the convergence criteria were seriously deteriorated in the last year, while the political support for the euro adoption remains mainly declarative without a fixed euro adoption calendar. The main results show the deteriorating perceptions of Romanian citizens regarding the euro adoption and the lack of confidence in the process, but also difficult economic circumstances that summarize a risky path based on unsustainable integration achievements.

2. Theoretical background

The first countries that have adopted the single euro currency in 1999 (Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain) were followed by Greece in 2001, preparing the ground for the second round of enlargement: Slovenia (2007), Cyprus and Malta (2008), Slovakia (2009), Estonia (2011), Latvia (2014) and Lithuania (2015). Currently, there are 19 EU Member States comprising the Euro Area, with seven other countries that are outside the area as Member States with derogation (Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Sweden) and one state (Danemark) with an opt-out clause to the existing protocol. At the time of the EU accession, Member States with derogation did not meet the conditions to enter the Euro Area, but have committed themselves to adopt the common currency when the Maastricht criteria will be reached. Bulgaria and Croatia have been accepted to the EU's Exchange Rate Mechanism (ERM II), which is seen as the euro waiting room. Although a voluntary action, the participation in ERM II prepare the countries for the Euro Area enabling exchange rate fluctuations within set limits for at least two years prior to adopt the euro currency.

The third enlargement of the Euro Area is expected to take place in the near future, but the EU representatives intensified the discussions about the necessity to prove stable macroeconomic conditions not only prior to joining the area, but mainly in the post-accession time. The major economic cost of the euro adoption is the loss of monetary policy independence (Alesina et al., 2002) causing a scenario in which the National Central Banks (NCBs) cannot use the monetary policy instruments to absorb the economic shocks. The Romanian entrance into the Eurozone corresponds with a transfer of responsibilities from the National Bank of Romania in the field of the monetary policy, without neglecting the fact that the Euro Area economic evolutions will prevail towards the national particularities.

In this context, it must be considered the optimum currency area (OCA) theory (Mundell, 1961) in order to analyze the correlation of the economic shocks between the Euro Area and Romania, with their similarities and policy responses to the shocks. According to the OCA theory, if the economic shocks between a monetary union are sufficiently coherent, thus the cost of giving up the independent monetary policy should not provide significant negative impacts because the economic activities in these countries are driven by the same determinant factors. The situation is different if there are some country-specific shocks that make less effective or counter-productive the common monetary policy mechanism, causing significant costs for the related countries. Conducting a study on Romania, Bulgaria and Croatia, Deskar-Škrbić et al. (2020) have stressed the strong integration with the Euro Area in terms of synchronization of business cycles and GDP growth. In the same extent, Bădîrcea at al. (2017) have tested the business cycle correlation between Romania and the Euro Area, finding a high level of correlation by applying the Hodrick-Prescott filter (HP) on GDP and a weak correlation by using the Industrial Production Index (IPI).

In the Romanian context, a number of indicators have been put forward to assess the degree of the economy's real convergence, such as the openness of the economy (Szeles and Marinescu, 2010), the sectorial structure of the national economy (Duhnea et al., 2012), the share of the EU exports and imports in foreign trade (Bădîrcea at al., 2017) or the evolution of GDP per capita (Dumitru, 2009). Figuet and Nenovsky (2006) use the unconditional β convergence approach in order to investigate the Romanian convergence to the EU common policy in relation with three other countries included in the panel: Bulgaria, Hungary and Czech Republic. Overall, the opinions converge on the idea of finding an optimum timing for Romania to enter the Euro Area (Dragan and Pascariu, 2008), without rush or unjustified delays, because a faster adoption of the euro currency in the case of missing the real convergence criteria would be not feasible, while a late adoption process would significantly decrease the Romanian public support.

In terms of Romanians' confidence in the euro currency, the paper analyzes the current perceptions of the euro adoption process, using the data provided by the European Commission through the Flash Eurobarometer reports. A similar approach was conducted by Floroiu (2020a), whose findings suggest that most Romanians are in favour of the idea of joining the Euro Area, although they don't think that Romania is completely prepared to introduce the euro. The same author has related the COVID-19 pandemic effects with the Romanian public opinion regarding the euro adoption through an online survey with a sample of 1000 Romanian residents, concluding that the

majority of the respondents are less confident that "the positive effects will overpower the negative ones" (Floroiu, 2020b, p. 105) in the case of the euro introduction in Romania. The Romanian public does not seem to be attached by the symbolic value of the national currency, looking at the inclusion in the Euro Area from a more pragmatic perspective that indicates a slight decreasing trust as result to the uncertainty framework designed by the pandemic conditions.

3.Research methodology

The present paper focus on exploring the nominal and real convergence criteria for Romania, basing the real convergence investigation on the GDP per capita indicator, Intra and Extra-EU trade by Member State and the Global Competitiveness Index 4.0 evolution. Both qualitative and quantitative analysis were employed, the data processing being made by using the SPSS software. First, the present fulfillment of the Maastricht criteria was emphasized by the one-point-in-time approach, corresponding to the updated figures for the year 2020. Second, the dynamism of the general public support for the adoption of the euro currency was highlighted through an analytical Eurobarometer framework adjusted to the period 2015-2020, in order to catch the social and political influence on a specific number of key-events, like Brexit, global crisis recovery, COVID-19 pandemic or election periods. In this sense, we have explored the recent economic developments related to the COVID-19 pandemic in order to identify the existing correlations between the health news and the RON/EUR exchange rate, focusing on a large sequence of data. A Pearson correlation coefficient was used to test the relationship between the COVID_19 (number of daily reported COVID-19 cases in Romania) and RON_EUR (the daily exchange rate RON/EUR value) variables, while the reference period was split into the following sections: the entire year 2020 and the period February 2020 – April 2020, the maximum panic point of the health crisis in Romania.

4. The nominal convergence criteria

The nominal convergence criteria, which were expressed and agreed by the Member States in 1991 in the Maastricht Treaty are non-negotiable conditions to be achieved for the candidate countries to the Euro Area. In order to ensure the successful integration into the Eurozone, the Member State must comply with the following criteria: (1) the price stability – the inflation rate should not be more than 1.5 percentage points above the average rate of the three best performing Member States; (2) sound public finance – the Government deficit should not be more than 3% of GDP; (3) sustainable governmental debt – the Government debt should not be more than 60% of GDP; (4) the long-term interest rate - should not be more than 2 percentage points above the average rate of the three best performing Member States (related to the price stability factor); (5) the exchange rate stability – participation of the country in ERM II for at least 2 years without significant deviations. Moreover, the candidates to the Euro Area must also ensure that their national legislation is compatible with the Maastricht Treaty, with the Statute of the European Central Bank (ECB) and of the European System of Central Banks (ESCB), claiming the independence of the central banks.

Table no. 1: Nominal convergence criteria - Romania

Criteria	Indicator	Target	2020
Inflation rate	*HICP Inflation (%)*	1.8	3.7
Public finances	*Government deficit (% of GDP)*	3	4.3
	Government debt (% of GDP)	60	35.2
Durability of convergence	*Long term interest rates (%)*	2.9	4.4
Exchange rate stability	*ERM II*	Yes	No
Legal convergence	*Legal compatibility with the Treaty*	Yes	No

Source: processed data from https://ec.europa.eu/info/publications/convergence-report-2020_en

According to the European Commission Convergence Report published in June 2020, Romania no longer meets any nominal convergence criteria (Table no. 1), being the only EU state subject to the excessive deficit procedure. Romania has registered a major setback in the euro adoption process, although in 2015 all the nominal convergence criteria were met. The explanations can be compressed

into two major causes: the huge governmental instability and the fiscal turmoil of the last period. Given the pandemic conditions, there is a high degree of uncertainty on the global market that can be transposed into a negative evolution of the most significant indicators in the next months, despite the comprehensive fiscal, macro-prudential and monetary policy measures adopted by the national authorities to counter these macroeconomic consequences. The registered Harmonised Index of Consumer Prices (HICP) was 3.7% in Romania, well above the reference value (1.8%) calculated by adding the 1.5 percentage points to the average of the HICP registered in Portugal (0.2%), Cyprus (0.4%) and Italy (0.4%).

The sustainability of the Romanian government financial position is defined by two main indicators: the government deficit (as % of GDP) and the government debt (as % of GDP). Even if the government debt (35.2% of GDP) maintains under the limits established by the Maastricht Treaty, the government deficit (4.3%) significantly increased above the 3% of GDP reference value, being driven by the current expenditure's levels and the rebound of the public investments from the historically minimum levels of the last period. On April 2020, the Excessive Deficit Procedure (regulated by the art. 126 of the Maastricht Treaty) has been initiated for Romania after the increasingly diverging trajectory from the Medium-Term budgetary Objective settled by Regulation 1466/97.

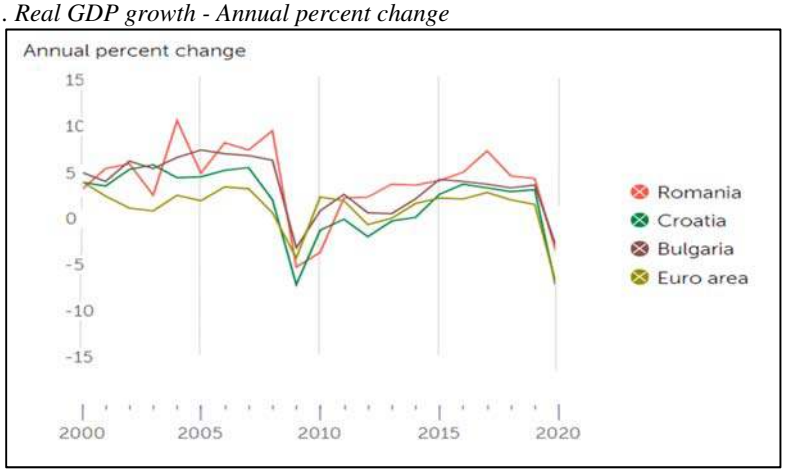
The COVID-19 pandemic has plunged the Romanian public finances into an unprecedented crisis, with a revised budget deficit to 9.1% of the GDP and huge public debts, while the European Commission projects a general government deficit of around 11.4% of GDP in the time horizon of 2021. Thus, the current economic context makes the implementation of the measures imposed by the Excessive Deficit Procedure even more difficult, claiming reduced public spending and fiscal reforms as necessary adjustments able to ensure the major correction of the excessive deficit. The pandemic has caused the suspension of the Stability and Growth Pact provision for all Member States (March 2020), which was until now the economic backbone of the European Union, providing the inside mechanism of the European budgetary responsibility. However, The European Commission has sent a reconfirmation of the launch of the excessive deficit procedure to Romania (April 2020), strengthening that the budgetary deviations took place before the outbreak of the pandemic, as a result of the inefficient fiscal framework.

The 12-months moving average long-term interest rate was 4.4% in Romania, above the reference value (2.9%) calculated by adding the 2 percentage points to the average of the best performing states under the durability of convergence criterion: Portugal (0.5%), Cyprus (0.8%) and Italy (1.6%). While Bulgaria and Croatia were included in the EU's Exchange Rate Mechanism (ERM II), the Romanian leu is still waiting for its moment as a result of the unfavorable evolution of the key convergence indicators over a relevant number of years. Moreover, the Romanian legislation does not meet all the requirements regarding the independence of the National Bank of Romania (NBR), the monetary financing conditions and the legal integration of the NBR into the Eurosystem. The risky paths of the nominal convergence criteria suggest multiple divergence points between Romania and the Euro Area, the successful euro adoption being a far away objective as a result of the negative economic impact of the COVID-19 pandemic predicted for the next period.

5. The real convergence criteria

In the broadest sense, the real convergence refers to the process of adjusting the economic and social structures to those from the Euro Area, one of the main indicators used to assess the extent of the economic development gaps being the Gross Domestic Product (GDP). According to the Eurostat data, the real GDP per capita in Romania was 9.120 euro per capita, which is approx. 31,87% of the EU28 average and 29,22% of the average reached by the 19 countries forming the Euro Area. Croatia and Bulgaria, which were included in the ERM II and are much closer to achieving the euro adoption goal, have reached 12.450 euro per capita in the mentioned period, respectively 6.840 euro per capita. The dynamics of real GDP growth rates in Romania was higher than in the other countries in the period 2000-2020, accelerating its convergence to the EU average after 2012, while Bulgaria has recovered more slowly. A soft improvement was also in the case of Croatia, whose real GDP per capita in 2019 was exceeding with 8.63% the pre-crisis value (Figure no. 1).

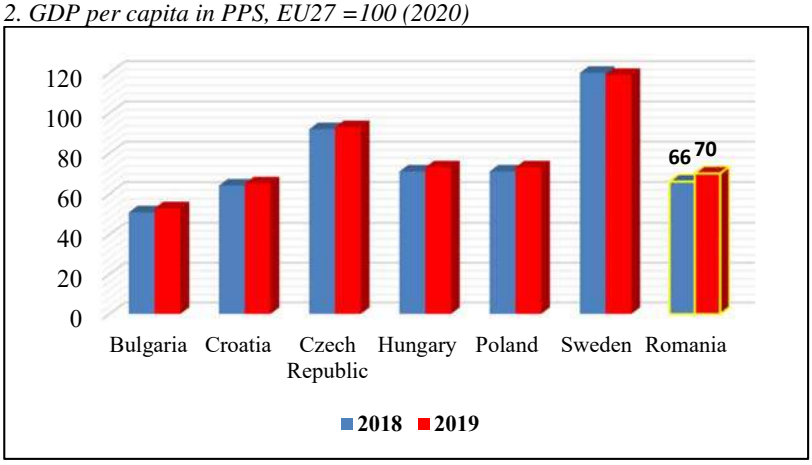
Figure no. 1. Real GDP growth - Annual percent change



Source: processed data from https://www.imf.org/external/datamapper/

According to the Figure no. 2, Sweden and Czech Republic had the highest GDP per capita in Purchasing Power Standards (PPS) in relation to the European Union average set to equal 100, while the general trend was positive in the last two years for all the Non-euro Area State Members without an opt-out. The Central and Eastern European (CEE) group is still vulnerable in terms of real convergence, despite the common efforts towards the process of catching up with the former European Union members. Figure no. 2 suggests that we can find more strong convergence points within the CEE region than with the rest of the EU27 countries, requiring a more prudential supervision of the CEE countries adhesion to the Eurozone in line with the increasing concerns about the right timing of the process.

Figure no. 2. GDP per capita in PPS, EU27 =100 (2020)

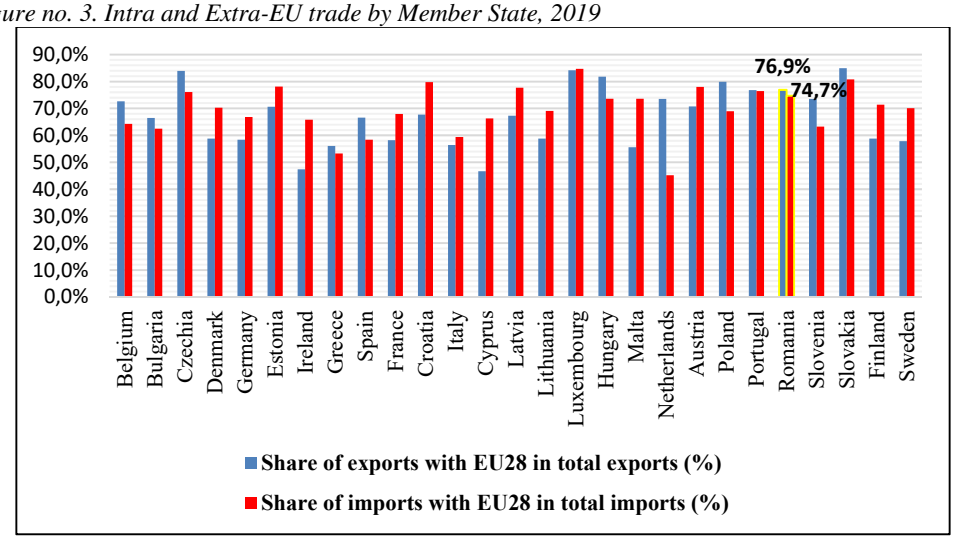


Source: processed data from https://ec.europa.eu/eurostat/

The trade integration of Euro Area Member States and Non-Euro Area Member States with EU - 28 countries (2013-2020) in terms of exports / imports (Figure no. 3) reveals that Romania had superior shares of Intra- and Extra-EU trade from the total exports/imports, well above the EU's average. The data provided by the Romanian National Institute of Statistics for the period 01.01.2019 – 30.09.2019 describe the main structural changes of the Romanian international trade compared to the same period of the previous year. The FOB exports decreased in the mentioned interval with 13.6%, totalizing EUR 44811.2 million, while the structure of exports according to the sections comprised in the Combined Nomenclature suggests that 6 main sections hold 73% of the total exports. The section machinery and mechanical appliances, electrical equipment, sound and image recorders and reproducers registered 29.5% of the total exports, holding the first place in 2019. The exports to the other EU countries decreased by 12,9% from the previous period. The main partner

countries from this group are: Germany, Italy, France, Hungary, Poland, Bulgaria, Netherlands, United Kingdom, Turkey and Czech Republic.

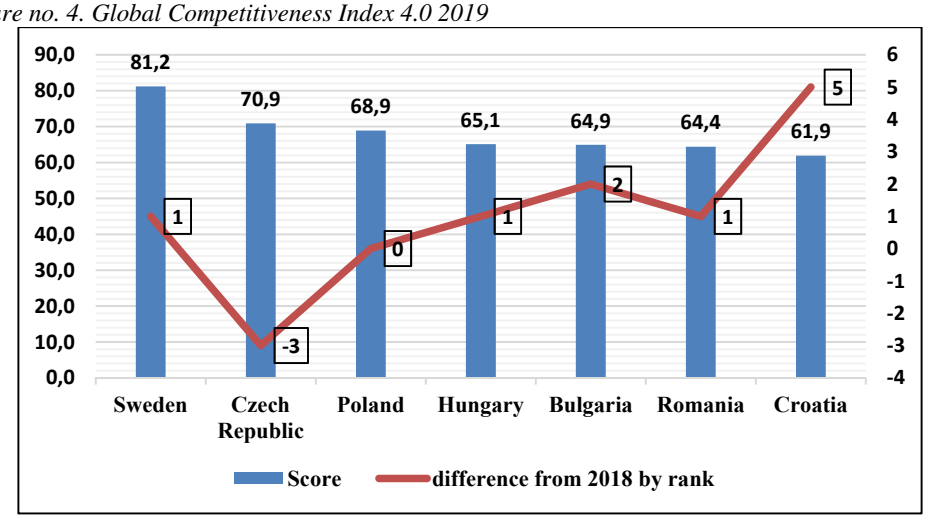
Figure no. 3. Intra and Extra-EU trade by Member State, 2019



Source: processed data from https://ec.europa.eu/eurostat/

The structure of CIF imports by the first three groups of goods according to the Combined Nomenclature was as follows: machinery and mechanical appliances, electrical equipment, sound and image recorders and reproducers (27,5% of the total imports), chemicals products (11,6%) and base metals and articles of base metals (9,9%). Similar to the export's evolution, the imports with the other EU countries decreased by 8,8% from the same period of the previous year. The main 10 commercial partners from the EU area were: Germany, Italy, Hungary, China, Poland, France, Turkey, Netherlands, Austria and Bulgaria. Totalizing EUR 57871.1 million in the period 01.01.2019-30.09.2019, the Romanian CIF imports decreased by 9,4%. The FOB-CIF trade deficit increased with EUR 1000.2 mill. in the reference period compared with the same interval of the previous year, to a total value of EUR 13059.9 million. Based on the World Bank primary data, the Romanian trade openness was 84,56% of GDP in 2019, while Croatia reached 102.28% of GDP and Bulgaria 122,58% of GDP.

Figure no. 4. Global Competitiveness Index 4.0 2019



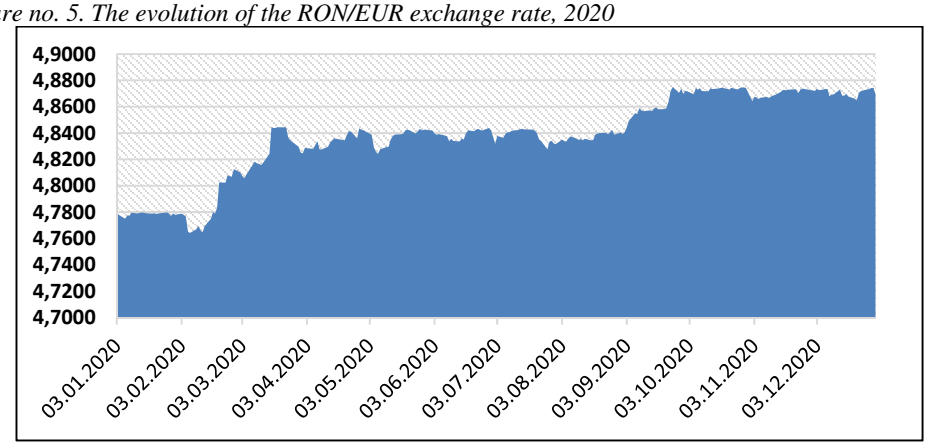
Source: processed data from http://www3.weforum.org/

In order to determine the Romanian level of productivity, it was analysed the Global Competitiveness Index 4.0 2019, which covers 141 economies around the world and measures both the microeconomic and macroeconomic pillars of the national competitiveness grouped in 12 main categories: institutions (rank 52), infrastructure (55), ICT adoption (32), macroeconomic stability (56), health (83), skills (72), product market (64), labour market (57), financial system (86), market size (41), business dynamism (72), innovation capability (55). The most significant difference from 2018 by rank was registered by the Czech Republic, although the advance from the other CEE countries included in the Figure no. 4 allows it to maintain its leading position. Romania ranks 51 in this top (total score 64.4), advancing one position from the previous year. The country performed well at the macro-economic stability and health criteria, while the innovation capabilities was the critical point. Unfortunately, the Global Competitiveness Report confirms the serious gap between Romania and the other EU Member States, placing the country in a strong unfavorable position with limited tools to accelerate the achievement of the real convergence criteria in the near future.

6. Romanians' perceptions about the euro adoption process

The present section is focused on the general public opinion regarding the euro adoption process, taking into consideration the last year deterioration of the most economic indicators under the COVID-19 pandemic circumstances. First, as can be observed from the Figure no. 5, the evolution of the RON/EUR exchange rate during the year 2020 was marked by a significant volatility after the COVID-19 pandemic outbreak (February 2020). Despite the extreme conditions generated by the health crisis, the overall dynamics of the RON/EUR volatility highlights only a minor depreciation of the national currency against the euro. Thus, the RON/EUR exchange rate has rose by 1,89% in 2020, from 4,7789 RON/EUR (03.01.2020) to 4.8694 RON/EUR (31.12.2020). The provisions for 2021 suggest a gradual depreciation of the Romanian leu, of about 2-3% per year and a slow transition to the value 5.00 RON/EUR at the end of the year.

Figure no. 5. The evolution of the RON/EUR exchange rate, 2020



Source: processed data from https://www.bnr.ro/Raport-statistic-606.aspx

Then, we have tested the hypothesis of a positive correlation between the COVID-19 reported cases and the RON/EUR exchange rate. In order to test the hypothesis, the period was split into the following sections: the entire year 2020 and the period February 2020 – April 2020, the beginning of the health crisis in Romania, and there were used COVID_19 and RON_EUR variables. A Pearson correlation coefficient was used to test the relationship between the two variables, the findings suggesting the negative effects of the pandemic conditions for the RON/EUR exchange rate, materialized in the deterioration of the national currency against euro. The test results revealed a quite strong positive correlation between the two variables for the period January 2020 – December 2020 ($r = 0.630$, Table no. 2) and a medium correlation for the beginning of the COVID-19 pandemic, $r = 0.554$, $n = 62$, while the correlation is significant at the 0.01 level.

Table no. 2. Correlation between COVID_19 and RON_EUR, 2020

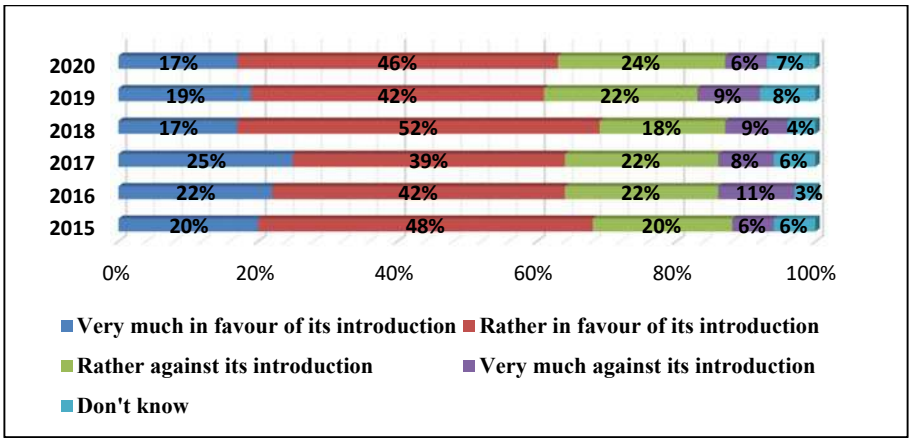
		COVID_19	RON_EUR
COVID_19	Pearson Correlation	1	.630**
	Sig. (2-tailed)		.001
	N	246	246
RON_EUR	Pearson Correlation	.630**	1
	Sig. (2-tailed)	.001	
	N	246	246

**. Correlation is significant at the 0.01 level (2-tailed).

Source: author's compilation using the data provided by https://www.bnr.ro/Home.aspx and www.worldometers.info

Considering these results, the present section is devoted to the pandemic challenges on the Romanians' confidence in the euro currency by exploring the European Commission Eurobarometer from 2015 to 2020. In order to understand to what extent, the Romanians' trust in the Euro currency has been affected by the COVID-19 pandemic, we investigate the survey item: *Generally speaking, are you personally more in favour or against the idea of introducing the euro in Romania?* The large majority of Romanians are in favour of introducing the euro (63% of the respondents), with a slight increase by 2 percentage points compared to the year 2019. However, it must be noticed a decrease by 5 percentage point in the Romanians support for euro in 2020 compared to the first year included in the analysis (2015). The highest level of overall approval for the euro adoption process was achieved in 2018 (69%), by 8 percentage points fall in support in the next year (61%, 2019). Among the other candidate countries, the opinions were most positive in Hungary (66%, 2020), while most negative in Czechia (63%, 2020).

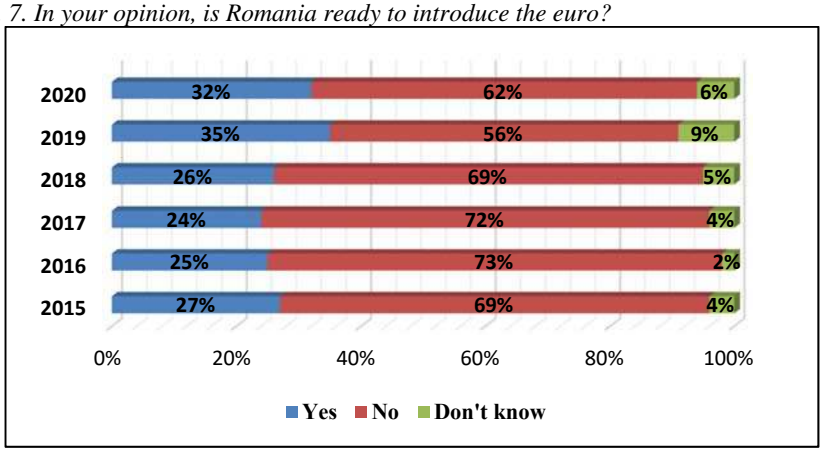
Figure no. 6. Generally speaking, are you personally more in favour or against the idea of introducing the euro in Romania?



Source: processed data from https://ec.europa.eu/info/index_en

Compared to 2019, the number of Romanian residents who believe that the country is not yet ready for the successful euro adoption has risen by 6 percentage points (to 62% of the respondents) in 2020 (Figure no. 7). This situation was amplified by the uncertain COVID-19 pandemic context and national political framework, the poor nominal convergence performance of our country and the destabilizing effects generated by Brexit. The Euro Area vulnerabilities are more actual than ever, being stressed by the unpredictable nature of the pandemic and the concerns regarding the large economic gaps between the new Euro Area candidate countries and the other Member States. Even if there are no signs of symbolic attachment to the national currency, a firm majority of the population perceive the measures taken to introduce the euro as less effective due to the poor fulfillment of the convergence criteria.

Figure no. 7. In your opinion, is Romania ready to introduce the euro?



Source: processed data from https://ec.europa.eu/info/index_en

7. Conclusions

Romanian economy suffers serious damages after the COVID-19 pandemic, but the multifaceted euro adoption process reveals prior frictions in the system. While Bulgaria and Croatia have already a significant milestone by participating in the EU's Exchange Rate Mechanism (ERM II), the Romanian path to joining the Euro Area is still waiting its moment. The in-depth analysis of the Romanian economic position reveals that such an achievement can be counterproductive in the absence of the real convergence criteria fulfillment due to the fact that artificially integrated countries can disrupt the catalyst efforts. Exploring the nominal convergence criteria in 2020, we have found a major setback in the Romanian euro adoption process, even if in 2015 all the nominal convergence criteria were met. The political instability and the fiscal turmoil of the last period could explain this negative evolution, suggesting a sluggish advancement towards euro currency mainly due to political causes. The significant budgetary deviations from the reference criteria have plunged the Romanian economy into an unprecedented crisis, doubled by the COVID-19 pandemic conditions which made the situation worse.

In order to complete the picture, the real convergence criteria revealed multiple gaps between Romania and the Euro Area, in line with the other CEE countries which remain vulnerable, despite the common efforts towards the process of catching up with the former EU members. There are more convergence points within the CEE region than with the rest of the EU27 countries, the results requiring an increased concern about the right timing of the euro adoption process. The one-point-in-time analysis focused on the COVID-19 pandemic, highlighting the pandemic challenges on the Romanians' confidence in the euro currency. The SPSS analysis outlines the negative effects of the pandemic news for the RON/EUR exchange rate, transposed into a significant deterioration of the national currency against euro. There is a quite strong positive correlation between the reported number of daily registered COVID-19 cases in Romania and the RON/EUR exchange rate. Moreover, the European Commission Eurobarometer strengthens the same result, being noticed a decrease by 5 percentage points in the general public support for the euro currency in Romania in 2020 compared to 2015. Even if the majority of Romanians' citizens are in favour of introducing the euro currency, the number of Romanian residents who believe that the country is not yet ready for the successful euro adoption has risen by 6 percentage points.

The euro adoption remains a far away objective for Romania, neglected by the political factors which proclaim their declarative support, without fixing the necessary milestones. With several euro-adoption targets already abandoned, the euro currency seems to be lost the public support as well. The deteriorating perceptions of Romanian citizens regarding the euro adoption is more related to the process, as they perceive the euro adoption from a more pragmatic perspective, irrespective of their symbolic attachment to the symbolic value of the national currency. Without a sustainable fiscal position and correlated business cycles the euro adoption will translate into a huge economic cost equivalent to the loss of monetary policy independence.

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Section III

Economic and Social Studies

The Investments Process in Romania during the Latest Years. A Macroeconomic Analysis

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Abstract

Our below contribution refers to what is actually happening in Romania, as investments. Concepts, correlations and the rest of characteristics will help the analysis of the Romanian economic entities' investment behaviour in this part. References to main currents of thinking, as published in the established literature, see themselves turning here into the Romanian analysts' current opinions, as expressed in the local press, so in a different form of expression. These latter opinions will, of course, be accompanied by statistics and extracts of, where the case. Synthetic calculus on such concrete data will be part of references, as much as opinions, including speculations made by these specialists. No polemic objections to these from the author of this text.

Key words: domestic investments, public investments, external equilibrium, gross fixed capital formation (GFCF), decision management
J.E.L. classification: E00, E03, E20, E22, E43

1. Introduction

Shortly, the issues of this paper summarize as follows:first of all, whether and how exactly investment indicators could be influenced by policies applied, e.g. monetary policies (Patat 1993), development programs or other government tools, versus whether the companies "abstinence" towards investing might be the primary reality (i.e. primary to all interventionism). Second, whether and how much investment *uncertainty* and *risks* – that are pretty obvious for the micro (companies) area – could be actually the expression of the *macroeconomic* limits of the investments on economic growth impact. Third, whether public investments really keep positive influence on the private ones, versus the "Freedman incompatibility" between. Finally, the influence in this area of facts from foreign direct and/or portfolio investments.

2. Literature review

According to Marginalists (Hardwick, coord. 1992), investments firstly meet production, its technical capital (Wicksell 1893) and this latests substitution relation with labour – and capital-labour substitution is one of controversial concepts between classics-neoclassic (there is such substitution) and currents based around JM Keynes (no such substitution) – the classics' camp only apparently believe in growth when investing in technical capital only. Then, investments deal with development (Harrod 1939; Domar 1946). Harrod & Dommar, with their well-known model on economic development, together with Keynes(1936/2009) and opposite to neoclassic, do not believe in capital-labour substitution and think that development needs investments in both production factors.

Anyway development is the one that changes the appearance of the environment that hosts (once again) production, business, but also social life. This context might be properly called the 'real economy'. Out of this, investments meet the interest rate (Böhm-Bawerk 1890, 1891, 1921), money condition and banks (Fisher, 1907; 1930) – including the banking system –, together with financial companies, as well, on the short term. Actually, the interest rate that here works on the

savings-investments meeting is either significantly multiple levels (Mankiw 1994) or indirectly influencing even the market price level (Wicksell 1901, 1903, 1907).

To this classical-neoclassical context of thinking JM Keynes (1936/2009) adds a new bunch of items further related to investments: savings feeding them while these last are fed by *national income*, in their turn, and these on the short term, once again; then, on the short term investments meet *interest rate* as influenced by, while on longer term they search for their own impact on economic *growth* – as already mentioned above.

Another 'bunch' here brought in by Keynes, as well, contains *consumption* that influences investments in another 'triangle' context with savings – these last opposite to consumption on the short term and feeding investments on the longer one. It is consumption boosting investments, through investments *multiplier,* while imports lower the same multiplier here accusing the economic openness (Keynes 1936/2009).

Thirdly, investments associate with government spending – here including *public investments* – and, together with consumption (once again) they form the *aggregate demand* – ultimately, a premise of the next period *national income* with growth incorporated. Just a premise is this due to that, though, Keynes is the one who well understands that the growth effect of investments isn't absolute, but variable and influenced by factors turning them into *inflation,* the alternative to growth – actually the inflationary effect stays proper to aggregate demand.

The point that is both interesting, on the Keynes' side, and controversial with classics-neoclassic, is that in his Macro-Model investments appear exogenous for national income and interest rate, in their interaction on the *IS-LM curve ,* which means exactly the opposite to the above classic view of interest rate instrumented by banks in raising/lowering investments. To Keynes investments get able to influence the interest rate in their turn. Actually this is not to blame Keynes for, but something else – in the Macro-Model firms appear as just benefiting from investments, not as making or initiating them; not as paying taxes or as making savings the way households do either. As the result there exist to Keynes the savings and even the investments rates, but not the investment as – *gross* and *net* -- *capital formation* or investment in *tangible assets,* versus *net* investment. Investment *uncertainty* and *risks*, *private* to *public* investments correlations as well as the ones between *domestic* and *foreign direct* investments, some of these expressed as *rates,* are issues and aspects that exceed the Keynesian view. Investments as private initiative are to be found on the classic-neoclassic (liberal) side of economic thinking only.

3. Research methodology

This paper is a part of an extended research work , and had the objective to reveal the investment behaviour of Romanian companies, which is larger than what this paper here provides. Actually, this paper extracts the *macroeconomic* part of our research conclusions and this just for space reasons. Then, there are two parts of analysis to debate about: (i) basics of this investment behaviour, see scholar related literature that was already exposed above and relates to our direct contribution; (ii) studies undertaken on Romanian companies' data in last two years , provided by those directly involved in accessing them in detail : the Association of Financial and Banking Analysts (AFBA), for which there will be speaking below analysts like Iancu Guda, Adrian Ionescu, Elena Deacu or Alexandra Pele ; the financial consulting company ,Sierra Quadrant', here also basing its conclusions on its large client-companies portfolio. Also, studies made by organisms like National Institute of Statistics (NIS), National Bank of Romania (NBR) and National Office of Trade Register (ONRC) are here indirectly involved. A synthesis of such contributions on the investments domain has been made by us , based on related literature that will be added to the opinions of economic analysts; interesting aspects and conclusions here resulting from ultimately.

4. Research and findings

The Association of Financing-Banking Analysts or Romania (AFBAR) analysts are likely to prefer their conclusions associated to regularly National Bank of Romania (NBR) studies and reports. It is in such a context of facts that investments in Romania are viewed as affected by factors like: political instability, structural reforms' inconsistency, tensions on the labour market,

here including unpredictable wage behaviour, tax evasion and unfair competition -e.g. ‚black' and/or ‚grey' economy, (Ionescu N.A. , 2018)

In 2018 the Romanian companies' investments, together with public investments, just halved, as compared to 2009 (the story below is strictly related to current analyses reported by the Romania's specialized press, research centres and well-known individual researchers. Analyses and conclusions entirely belong to these persons and are cited as its are, without any of our interference) – actually, the 37 billion Ron investments amount of 2018 was about 52% of the real amount as such corresponding to that about a decade earlier. Or, the immediate cause of this seemed to be the specific resources' scarcity in this same private sector. Plus, wherever such resources though happen to be available the investment trust is the one that misses. It is certain that the State is re-confirmed as the , engine of investments in the sense that, at least in this country, it is not the private business area here expectable to provide investment resources and/or initiative, says the author here quoted. As in more detail, companies prefer to invest more in their livelihood, than in their renewal. About ¾ of the accounted value of the companies' assets – i.e. 5% of the total of 8% -- actually comes rather from land's and buildings' market reassessment, than from capital investments' growth. In other words, Romanian companies did prefer so far to preserve the level of *tangible assets* of the last decade.

4.1. Tangible assets. The cumulated value of Romanian companies' tangible assets actually went down from 769 billion Ron in 2016 to 707 billion Ron in 2017 year end and respectively 703 billion Ron in the next 2018. Long term investments for the assets' renewal (capital expenditure) in 2018 were 37 billion Ron, after just 8 billion Ron in 2017, while previously in 2016 these had been 85 billion Ron, which was more than the amount of the two next following years. The share of fixed assets in the total of assets in 2018 was 47% for firms of less than 1 million Euro revenue. On the contrary, investments in *intangible assets* amounted to about 25% of total investments in Romania, as compared to 36% that was the EU corresponding average.

4.2. Public investments. Recalling all of the above, *public investments* set the tone for total investments in Romania – i.e. in 2018 they fell to 2.3%, as compared to 4.8% of GDP in 2008, a decade earlier . It is also true that here there are two different analyses with a little differentiation of amount results -- i.e. the other of these mentions about 2.6% of GDP in 2018, as compared to 5.2% of GDP in 2009 – but the idea is quite the same. In context, public investments were 24.4 billion Ron in 2018 . More worrying is that 1/3 of total public investments go to the defence, invisible to the business environment, Iancu Guda estimates . The president of the Association of Financing-Banking Analysts or Romania (AFBAR), associates this public investments lowering to the larger context in which the State budget is likely to spend as much as 33% on wages, 13% on goods and services, 6% on interests paid and finally as low as just 4% on investments – of which,of course, 1/3 goes to defence modernizing.

4.3. Investment financing. Let us imagine that 39% of a total amount invested of 77 billion Ron in 2016 was made by delayed payments to suppliers. This was not so far from the 37 billion Ron, the bank credits to private companies the same year. Besides, companies' own resources were 10 billion Ron, of which 7 billions Ron were re-invested profit and the rest of 3 billion Ron was rising social capital .

4.4. Gross fixed capital formation (GFCF). The Gross fixed capital formation weight in GDP meets the most abrupt collapse of the whole EU area here, in Romania. And this brought to that the persistent economic growth be based on consumption, as the specific 'label' of the Romanian economy of these last years.

The productive assets acquisition – the main part of GFCF – went down, in its turn, from 37.4% of GDP in 2007 to 22.6% of GDP in 2018 – i.e. a minus of 15 percentage points. Or, such evolving is rather worrying from the perspective of the economic growth on medium term. Just noticing that public debt risen even while GFCF did not.

Another result of this contest of facts sees the *average working life of assets* approaching the 15 years time level – i.e. this is the highest such average of the last decade. 'It is too much for the current paces of *innovation* and of new products induced by new technologies', says Iancu Guda, who concludes that such an indicator reflects a low competitiveness degree on the Romanian companies' side.

It is no wonder, from another point of view, that the *economic supply* was not able to meet the corresponding domestic *consumption demand*. So, the last one drags imports into with the natural consequence of external *trade* and *payments balance* disturbance. And while the external balances and imports effects, the *exports* total amount was as high as 2,938 Euro per capita in 2018 – i.e. this is the second last in the EU, after Greece and 4 times lower than the EU average (11,160 Euro per capita). As for another example, in the neighbouring Hungary total exports concomitantly were 92 billion Euro, meaning 9,414 Euro per capita.

5. Conclusions

Another shortcoming of this investments sector is the one regarding *long term* investments. But this is exactly the above mentioned facts that lead directly to the non-adaptation of productions to the domestic demand – i.e. consumption demand, in excess with 10% in 2017, with 7% in 2018 and the same trend for the next following 2019. Or, also recall from above that such a *demand* exceeding over domestic *production-supply* naturally requires its taking over by *imports* – i.e. with the similarly natural consequence on the *trade deficit,* and that was so growing by 38%, in the first semester of 2018, as compared to the same period of the previous 2017. It was concomitantly that the Romania's GDP was growing by 5.5% and inflation by 4.1%.

This is also about another double decreasing capacity: the one of economic *restructuring* and the other of offsetting negative shocks from investments' specific revenue declining between 30% in 2008 and 20% ten years later, in 2018, of course, both effects concomitantly. As the concrete result, *revenues from investments* went down by as much as 80% in 2018, as compared to the 70% decreasing that had been ten years earlier, in 2008. "And all these directly due to a series of financial decisions taken along these recent years as not truly in favour of production and exports – while, on the other hand *consumption* was getting as oversized as up to boosting imports in its favour". (Guda I.) Then , investments in Romania are basically risky. They use rather short term specific resources – i.e. about 40% --, instead of highly substantial ones. Then, usually, investments prove time-delayed profitability, stay guided by 'what everyone else does' and keep low *multiplier effect* in the economy. Besides, the Romanian companies' current investments see themselves affected by phenomena like: wage rising expenses, unfair competition – e.g. tax evasion and 'black-grey' economy – and the harsh competition from imports.

Last, but not least, the same investments focus on *industrial sectors* like: constructions (see residential) and real estate transactions, whilst, on the dynamic part, the highest paces of investments are to be observed in sectors like: consumption goods industry, tourism and social assistance – i.e. and these last being examples for low multiplier effect of investments in the economy .

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An Analysis Model to Identify the Optimal Salary and Its Impact at the Level of an Economic Entity

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Abstract

The paper presents some theoretical and practical approaches realized as a result of the request of a collaborator of the institution of a thematic analysis. In this context, the information need was largely obtained from the thematically conducted interview and discussions on REVISAL technical-operational and accounting documents, on the legislation on staff salaries and rewards, on the fiscal discipline and on the annual financial statements. The scientific principles and approaches regarding managerial styles and the significant indicators for this case were identified. The trends of these indicators were also presented and the optimal salary expenditures were highlighted, together period and the effects with an impact in the efficiency of the management style practiced, in the further optimization of the salary expenses, in the increase of the level of personnel motivation and the assurance of high performances of the managed economic entity.

Key words: manager, human resources, salary, economic entity, performance
J.E.L. classification: E24, M12, M20.

1. Introduction

A thematic analysis was demanded by a collaborator of our institution in order to help the manager in conducting a proper management and to optimize salary expenses, together with increasing personnel motivation and to insure high personnel performances. Thus, after carefully structured interviews and discussions with the managers of the enterprise, but also with human resources and accounting representatives the information gathered on the evolution of the company was subjected to an analysis, keeping in mind the legislation in force and the significant indicators for each department analysed.

2. Theoretical background

Analyzing the relevant literature in reward management and the continuously changing legislation, a consensus was reached with renowned specialists on the economic entity that would represent from the perspective of HRM "a group of people who carry out joint activities aimed at achieving one or more goals" (Nicolescu O., 2003).

Therefore, from a predominantly socio-human perspective, the economic entity must be seen as a rather structural system, of employee interaction, as a managerially community oriented towards pursuing goals aimed at continuing the operation of the entity in terms of efficiency and profitability. Thus, one can see that the economic entity can be approached from two managerial perspectives: a functionalist one, according to which its issue is subordinated to the achievement of performance through work processes that are practically the means of fulfilling the purpose of the entity and employees thus benefit from great "power" (Nicolescu O., Verboncu I., 2004), to fully highlight their contribution to the generation of efficiency in activity and implicitly of profit. The second perspective is a more democratic one, which offers the entity's employees a much greater space for self-control over the most decisive aspects of their work and employee life within the entity.

This results in the fact that the staff of the economic entity participates both in achieving its goals and in satisfying its own interests, and the entity in turn is at the same time: a source of change and social motivation, fully responsible for present and future successes and social failures, present and future, from salaries and other incomes assimilated until the pensions period and subsequent support for the family or descendants as the case may be.

Although the managers and executives of an economic entity, together, constitute the human resources or the personnel of the entity (personnel expenses being an element of balance), managers remain the dynamic element of the economic entity. The managers are the ones that through the control they have on decision-making structures, energize the entity and society in general, because they can use employees, financial resources, information and materials to work with, they develop business, which in turn generates added value that results in the well-being of all staff, families and implicitly the society.

It can be easily seen that in the current knowledge-based economy, human resources and information resources are becoming increasingly important for the effectiveness of the entity management and efficiency due to the increasing importance of individual and organizational knowledge and learning. Thus, in an economic entity, the key element of the managers' work is the work with the company's staff and the recognition of work results though reward, the main responsibility being: to support the entity and achieve the desired performance by using with maximum efficiency all available resources, especially those of human resources that have always been highlighted as the only creators of value in any entity (Andreș S., 2009).

Thus, one can appreciate that the main task of the manager remains that of identifying the needs and ways to take action, to ensure adequate motivation and train employees, in order to increase work efficiency, including the performance of the economic entity they are part of. But starting from the analysis of the long evolutions in the field, it can be seen how the content of the personnel policy was continuously diversified, the finality of the personnel function being a double one, namely (Mathis R., 1997):

- It should first achieve the integration of social objectives into economic objectives, more precisely to reconcile economic constraints with the needs of human and social development;
- Next, it should integrate, coordinate, the various aspects of human resources management in a social policy - the social framework of the company's strategy: from policies, social relations and the integration of people in working teams and staff management, with the aim of ensuring normal operation using methods, procedures used depending on the traditions of the entity, its field of activity, the general and specific legislation in force, but also the qualification of the staff employed.

Between the management and human resources management systems aiming at the efficiency of the economic entity activity and the high economic-financial and social performances, it is considered that the most sensitive aspect can be represented at present, by the implementation of a system of rewards and appreciation of professional performances of the staff, although the managers have at their disposal the legislation in the field and its facilities, especially in this last period, a welcomed legislation in support of the resilience of the businesses affected by the Pandemic period. What is interesting in most entrepreneurs, with whom we had a number of thematically directed discussions and interviews, is in fact the finding of an optimal level of those expenses with salaries that allow businesses to remain viable if not profitable. Thus, an analysis at the request of the entrepreneur from an economic entity in Resita, in the design business (leather-textiles), in the pre-pandemic period was realized and the research will be extended in and post-pandemic period.

3. Research methodology

In order to perform the analysis to establish the optimal level of salary expenses, in fact the only rewards granted at the date of analysis, the most relevant indicators from the annual financial statements were selected (mfinante.ro), from balance sheets and payrolls prepared for the period July-December. The indicators chosen were used in the calculation of labour productivity - the most relevant synthetic indicator having the greatest force in expressing the efficiency and viability of the business, thus finalizing a table with the main indicators used to assess the level of wage

expenditures (table no. 1.).

Table no. 1 The main indicators in assessing the level of wage expenditures in the analyzed economic entity

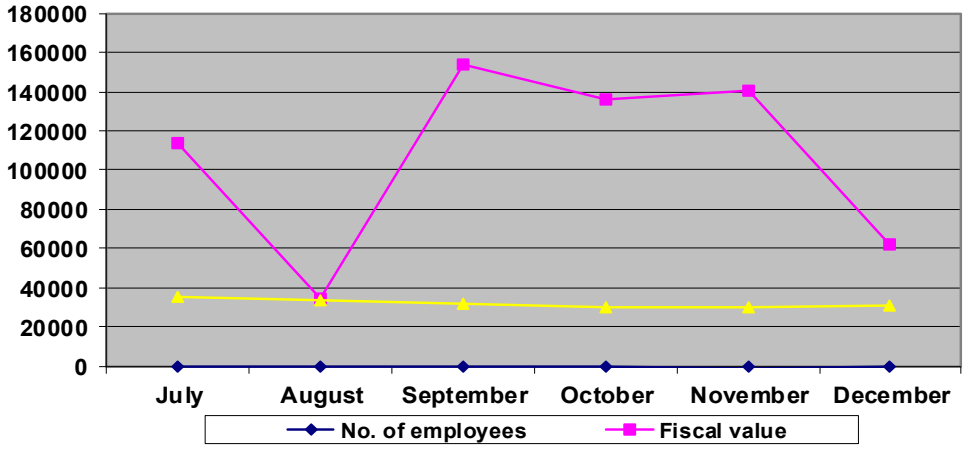
INDICATORS	REFERENCE YEAR					
	July	**August**	**September**	**October**	**November**	**December**
No. of employees	51	50	47	48	44	45
Turnover	113.702	34553	153955	135875	140794	62025
Profit	6990	-36437	30944	60963	70234	-163388
Salaries fund	44948	36866	39478	38654	38656	36435
FS index $\frac{FS_1}{FS_0}$	0.99	0.82	1.07	0.98	1	0.94
Work productivity $\frac{\text{Turnover}}{N_e \text{ (No. of employees)}}$	2209,45	691,06	3275,64	2830,73	3199,86	1378,33
Work productivity growth index $\frac{W_{m1}}{W_{m0}}$	1,04	0,31	4,74	0,86	1,13	0,43
Vouchers expenditures	9387	3303	24910	9387	7740	25453
Salaries expenditures	35279	33427	31765	30247	30411	30630

Source: Realized by the author

4. Findings of the analysis of synthetic indicators

In order to analyze the evolution of relevant indicators in solving the issue proposed and their trends, but also to identify the optimal level of salary expenditures in order to maintain good practices and implicitly the already loyal staff, the graphical representations and their interpretations are also presented.

Figure no. 1 Tendencies of the indicators N_S, Turnover, Salary expenditures during the period July-December of the reference year



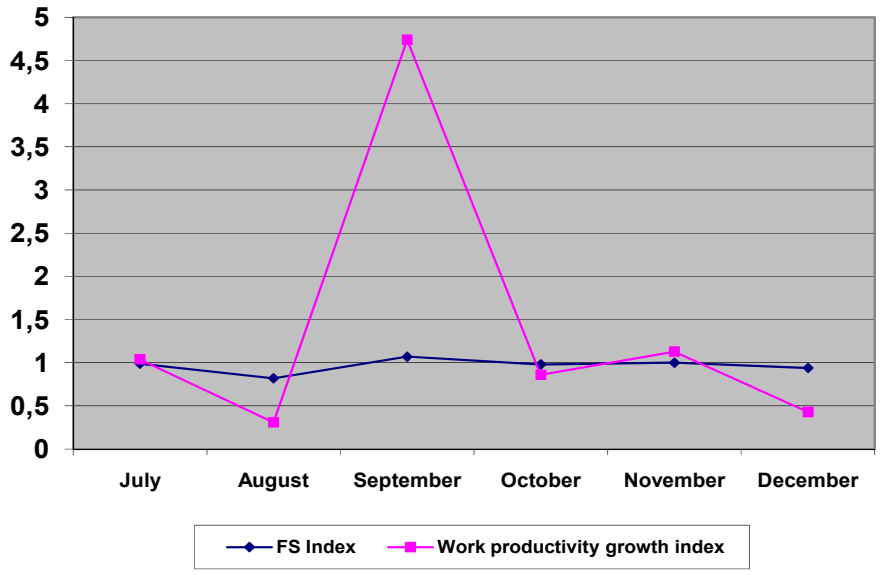
Source: Realized by the author

Thus, one can be observe in figure 1., which are the tendencies of the indicators N_S, CA, Salary expenditures during the period July-December of the reference year.

During the period subjected to this analysis, one practically sees the efforts to maintain the number of employees, the approximate maintenance of the salary level, with a tendency of significant regression of the indicator of salary expenditures in July and December, due to the dependence on mandatory leave periods of customers, especially external ones, implicitly the lack of orders.

The situation represented actually reflects the achievement of the optimal level of wage expenditures in September, when the economic entity registered a significant increase in turnover, implicitly of work productivity, a period during which both the current orders and the orders from periods when holiday leaves were registered were practically honoured.

Figure no. 2 Tendencies of indicators Fs, Wm



Source: Realized by the author

The previous representation shows the decrease rates, but also the increase of those indices that must always be correlated for work efficiency, the rates being approximately similar, except for the month of September, when significant advance of the wage growth index can be observed, influenced by the work productivity growth index, an advance due first of all to the loyalty of the staff by granting meal vouchers in September and then to the increase of the production implicitly to the fulfilment of the previous orders.

Moreover, the result is correlated with the one in the case of the previous figure, figure 2, reflecting the achievement of the optimal level of salary expenses implicitly of the salary fund, again for the month of September.

From the figure 3, one can see clear the manager's abiding of the economic unit of staff rights, ensuring the maintenance of the number of employees and the compliance with contractual provisions, granting salaries only in accordance with the employees' work performance, all reflected in a growing company performance, expressed by these indicators considered relevant, the indicators Ca, P, Wm, their values and trends being influenced by the level of these expenses with salaries, the optimum of which was found in all cases, during the month of September of the reference year.

Figure no. 3 Synthesis of the trends of the general indicators presented in table 3.1



Source: Realized by the author

5. Conclusions

One can appreciate that the enterprising manager proposed such an analysis, proving that he is concerned with both production and work efficiency which actually gives him an efficient leadership style (first identified by W.I.Reddin in Mihuț, I., 1998) and with employees who have to meet all the needs at the job offered, especially since within the managed economic entity, the responsibility for this field of human resources rests solely with the manager and a person employed as a human resources inspector. At the same time, by analyzing the method of calculating and granting personnel rights, it can be seen, first of all, the abidance of the legal regulations in force, implicitly of the Romanian Constitution, the manager being permanently concerned, as he stated, with:

- The insurance of stable jobs, without any personnel fluctuations;
- The insurance of protection and safety at work by drawing up bilaterally signed forms, by arranging sanitary point inside the registered office, by incurring expenses with amounts that are intended for the special fund, for risk and accidents at work, the health fund, and other contributions in employee support.
- The remuneration only in relation to the quantity and quality of the work performed, as revealed by the trends of the indicators analyzed that practically highlight the observance of the correlation rewards - performance - employee satisfaction, ultimately reflected in loyalty

to the company, the absence of fluctuation and increased work productivity;
- The guarantee, according to legal provisions, of weekly rest holidays;
- The guarantee of the annual leave that he paid in advance to employees;
- The guarantee of sick leave according to the law;
- The insurance of career opportunities, training with the support of county agency of labour force;
- The provision of an old-age supplementary pension;
- The insuring of work conditions for the improvement and specialization, mentoring on qualification fields;
- The offering of meal vouchers when possible, giving 5 gift vouchers for Easter and Christmas, etc.

Also, the company's management annually estimates the personnel rights expenses taking into account the current salary system, using a fixed minimum quota and another variable (depending on the performances achieved as well as the rigidity of the necessary personnel to the implicit increase of activity turnover). The analysis of the trends of the indicators calculated in the case study presented above, generally reflects the efficiency of staff costs and in particular the optimal level of salary costs reached in the month of September of the reference year, a level at which the manager desires to maintain, thus knowing the impact not only on the individual performance, but also the overall performance of the entity managed.

The results of this research were based on observations and photographs of specific documents presented and of annual financial statements, study of documentation provided by company representatives and thematically directed discussions with the manager of the responsible economic entity and of human resources, discussions based on precisely the fact that this situation of identifying the optimal level of these expenses for staff, more precisely those with salaries located in September, was repeated annually, from my previous practice of inspection at economic agents in the county. One can say that the situation is common to companies which have this type of object of activity, respectively the tailoring in the lohn system.

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Management Methods Recommended for a Small and Medium Enterprise

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Abstract

The article highlights some aspects and recommendations summarized at the request of an economic agent from the Romanian western region, regarding the implementation of managerial methods based on analysis, and to provide from the perspective and requirements of the management of the economic entity studied, the most complete and accurate information needed in the orientation of the business in the future, so that it is viable even in times of pandemic and why not, to generate profits, as any company manager actually wants. The managerial analysis and the recommendations can provoke addings in the near future by closely following the evolution of the entity's business in close accordance with the present and future legislation that already offers some facilities for small and medium enterprises. Therefore, the research and managerial analysis, remains open and will generate other beneficial recommendations for small and medium enterprises.

Key words: manager, economic entities, entrepreneur, analysis, performances
J.E.L. classification: L1, L25, L26

1. Introduction

The analysis presented in this paper is based on the SWOT analysis method and has been applied at the request of the manager of a boarding home in the Caras-Severin County, so that a proper view on the entity activity may be offered. The pandemic that affected the entire world this year, has seriously affected the economic domain, and even more the tourism area, which is struggling to maintain and to survive in these restrictive times.

Thus, a specialized analysis and advise may help managers from the touristic area adapt and, why not, even increase activity in different environments, that could benefit the accommodation and restaurants facilities.

2. Theoretical background

As specialized literature shows (Petrișor I., 2007), small and medium enterprises (SMEs) have a number of strategic opportunities and for any strategy used, the establishment of the entity or the change of functionality or development, in order to obtain various sources of financing, loans from banks, state aid, subsidies, and other non-reimbursable funds, these have the obligation to perform and present managerial analyzes, of which the simplest and which proved to be the most useful in this regard is the SWOT analysis.

This managerial method based on the SWOT analysis offers our entrepreneurs the elements of the entity's environment to consider in the analysis of risks, offers quality, but also in also useful in the organization's positioning in relation to competition and identifying opportunities and directions to follow. However, most of the time the finality is informal, leaving only proposals or ideas in the manager's mind, if he is not enterprising and does not assume the risks that revert to him in this capacity (Andreș S., 2008).

As in most cases, the strategic potential of the SME depends on that general balance (Băcanu B., 1997). In order to know the opportunities and evolution of the business, as well as the possibilities for development or investment, any manager, even more so if he is an entrepreneur, should choose the managerial tool, technique or management method that reflects as clearly or accurately as possible all the information generated by the entity's activities.

3. Research methodology

In approaching this case study, we considered it relevant to first apply the managerial method that can provide information in their complexity, the activities studied and the environment of the entity, namely the SWOT analysis (Băcanu B., 2006). In this context, the importance of the methodology approached was subordinated to certain objectives that had to be established in advance:

- knowledge of some premises, performances but also vulnerabilities of the entity analyzed;
- knowledge of the prospects in the field of activity and investment of the entity;
- knowledge of the current general state of operation of the entity but also of each organizational level from the perspective of all available resources, financial, human, technical, commercial, informational potential;
- identification of all critical points but also of the main causes that generated them;
- analysis and assessment of possible risks, both present and future, as well as the chances of business viability, also taking into account the decrease in the level of the main efficiency indicators during the last three years, etc.

4. Findings of certain types of analysis applied in a SME

Observing both factually and in writing, the modernizations made in the entity studied recently, it can be seen that the enterprise activity contributes to the beautiful evolution of the company business and to the touristic area in the region, which is why this analysis is considered to be appropriate, an analysis on the tourist boarding house. The company associates also showed interest in the knowledge of weaknesses and threats that could be identified, in order to turn those weaknesses into strengths and threats into opportunities. From my point of view these would be possible only by knowing the current state of affairs and improving strategies with new modern strategies, appropriate to the periods of instability generated even by this state of pandemic.

Thus, we recommended for the knowledge of the directions for improving the company's activity, the following SWOT analysis, which should then be used by the associates of the entity analyzed.

Table no. 1 SWOT analysis of the SME

	Strong points	**Weak points**
	The boarding house is equipped with equipment classified at highest standards, according to European standards	It is located about 1 km outside the city.
	The favourable geographical position for tourism places the boarding house in a quiet, unpolluted area, surrounded by wonderful landscapes, away from the noise and the crowded city	Lack of an adequate promotion, as the budget required for promotion is limited
	Providing the best quality services at affordable prices	Lack of staff responsible for quality and online marketing
	The relief of the area is predominantly mountainous, with elements that can generate tourist attractiveness and a variety of offers.	Although the access infrastructure is quite good, the quality of the roads is below the European standards, which is why some of the foreign tourists prefer the accommodation units in the west.

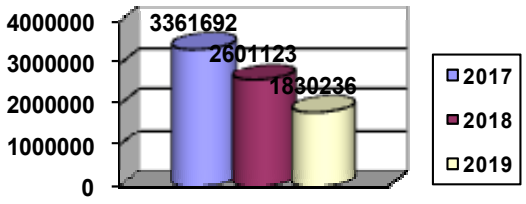
Opportunities	**Strategies strong points - opportunities**	**Strategies weak points – opportunities**
The boarding house is constantly expanding	Creating touristic products different from those of the competitors'.	The establishing of a marketing plan through specialists, even an outsourced service so that the boarding house benefits from promotion, both on specialized tourism sites and in leaflets, brochures, or on local radio or TV stations.
The possibility of new tourists entering the market	Extending the touristic products of the boarding house by organizing thematic leisure programs, spending free in the most pleasant way possible	The location must be perceived by tourists as the biggest advantage of the boarding house, because the boarding house is located at approx. 1 km outside the city, the area is not polluted, with clean air.
It can benefit from the emergence of new technologies and touristic equipment	New investments in professional equipment and in the image of the boarding house.	Diversifying the offer, especially during the pandemic period and the professional orientation of some employees with the prospect of advancement or working online or from home
Legislation favourable to tourism entrepreneurs	Recruitment and employment of staff and young graduates, implicitly changing the organizational culture	Carrying out a program to make use of the facilities granted to tourism
Disappearance of competing accommodation units (e.g. Insomnia boarding house)	Strengthening the market position	Acquisition of talents and qualified staff from the hostels from the area, which were closed.
Threats	**Strategies strong points – threats**	**Strategies weak points – threats**
Competitive companies recently entered the market, a relevant example is Vila Maria	Resistance in front of competitor by creating advantages over it	Reducing competitive threats, by differentiating from competition, as a result of the development of tourist products different from those of competition
The tourists' possibility to replace the services offered by the entity analyzed with the services of other touristic reception units	Attracting the segment of foreign tourists through proper promotion	Association with other investors in the field of tourism
Inflation and the macroeconomic crisis	Efficient use of the employed economist and the recommendations of collaborating specialists to ensure business resilience during the pandemic	Use of specialized marketing services to improve the promotion of the boarding house
Instability of bank interest rates and exchange rate fluctuations, in case the boarding house would contract a bank loan	Specialization of staff at work, in communication, payment of online utilities	Bank loans are not recommended in the near future
Increase in taxes	It is recommended to look for solutions for tax credit and / or VAT recovery related to completed investments	In the near future, training in project partnership for expansion and infrastructure. Not recommended yet
The seasonal nature of tourism and events does not ensure a stable income throughout the year	Caution is recommended when paying and following the financial-fiscal facilities for both activities and employees.	

Source: Realized by the author

Also, based on the analysis of the annual financial statements for the last three years (www.mfinante.ro) one can see the following:

The net turnover three years ago was of 3,361,692 lei, while in the following year it showed a decrease to only 2,601,123, and in the last year analyzed the turnover decreased to 1,830,236 lei.

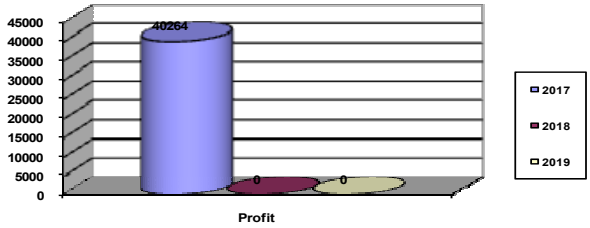
Figure no. 1 The evolution of the Turnover of the analyzed company



Source: Realized by the author

At the same time, comparing the entity's profit, for the three reference years, we notice that although in the first year analyzed, the realized profit was of 40,264 lei, in the next two years, the company did not make a profit.

Figure no. 2 Profit evolution of the analyzed company



Source: Realized by the author

Work productivity is calculated by the formula (Andreș S., 2008):

W = Turnover/Np

During the first year the work productivity resulted in: 3.361,692 / 34 = 98.873,29 lei/employee

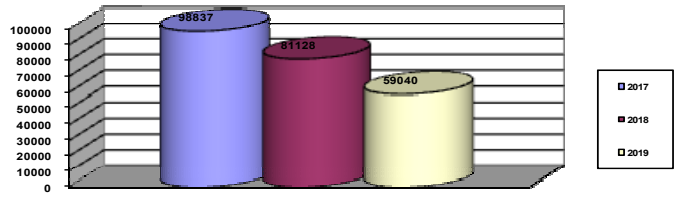
During the second year the work productivity resulted in: 2.601,123 / 32 = 81.128,09 lei/employee

During the last year the work productivity resulted in: 1.830,236 / 31 = 59.039,87 lei/employee

According to the results presented one can observe a slight decrease in work productivity, from 98,873.29 lei / employee, in the first year, to 81,128.09 lei / employee in the second year, followed during the third year by a sharp decrease to only 59,039.87 lei / employee.

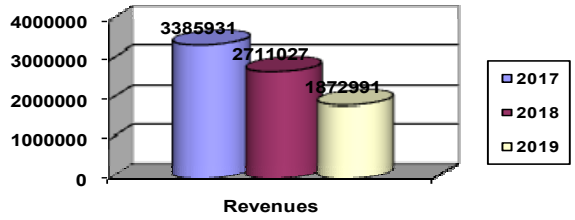
Analyzing the income achieved by SMEs in the first year analyzed, this was 3,385,931 lei and then decreased during the following year to 2,711,027 lei and in the last year to 1,872,991 lei, the decrease being highlighted in the chart presented in Figure 4.4.

Figure no. 3 The evolution of the work productivity of the analyzed company



Source: Realized by the author

Figure no. 4 Dynamics of analyzed SME revenues



Source: Realized by the author

5. The conclusions of the requested analysis

In an overview, the analysis of the economic activity of SMEs reveals some differences between certain elements of the system, such as in the financial field, by balancing the available financial resources at a given time but also over a certain period of time, by combining with the need for human resources from the same period. Still, for all the three years taken into account, a significant decrease can be observed both in terms of turnover and work productivity but also in terms of the number of employees. Also, another aspect related to financial resources is taken into account, in terms of own revenues related to basic activities, especially the pension, as well as any receipts from the state budget or bank loans, which also in the last three years have was declining.

If one analyzes the touristic activity of the company, one can see that this was realized only during the modernized boarding house three years ago, it offering tourists diversified ways to spend their free time by fishing, swimming, organizing trips through the surrounding forests, etc. The latter are advantages for an SME especially in the states decreed during the pandemic. In addition to these advantages, the analyzed SME offers quality accommodation and food services and other types of diversified services such as: recreational activities, business meetings, team-building activities, etc.

The organization of activities is still recommended regardless of the state established in compliance with the legal regulations in force, based on a certain work schedule that is strictly observed, because some risks taken could open even business opportunities even in times of pandemic.

The analyzed entity must try to ensure the satisfaction of the most demanding needs of tourists precisely through the facilities they could benefit: the isolated, spacious location, away from the urban agglomeration, the kitchen and bar that are properly equipped and equipped. Tourists are also provided with their parking spaces at all times.

Another aspect to be highlighted by both types of managerial methods based on analysis to assess the finality of the SME activity studied is the performance of the manager and the entity, from its establishment to the present. Both have a generally remarkable evolution, the last period being slightly affected, in compliance with legislative measures, especially in the event of a pandemic, and investments being completed in recent years.

Regarding another analysis of endogenous factors, both human and financial resources and materials have registered in SMEs, both an upward and downward evolution over time, but these were well managed in the interest of the entity.

Also, in the analysis of exogenous factors the following can be found: strong competition with an audience represented more by foreigners, by some of the most representative suppliers in neighbouring regions.

Finally, the analyzed entity also benefits from some peculiarities that significantly differentiate it from the competition, but also the most important, from my point of view, the location is an important factor, followed by the other outdoor facilities, hiking in the woods, organizing conferences, but also the possibility of organizing other types of outdoor events, terraces, tents.

Analyzing the current legislation and theories in the field in correlation with good practices resulting from the case study, one could highlight some features of SWOT management analysis, which is practically widely used by most SMEs in Romania, being recommended as a modern management method, even the default strategic management for touristic boarding houses.

Therefore, it can be seen that the detailed SWOT analysis requires, but also generates, a large volume of information, some related to the internal economic-financial environment helping other forms of analysis, but also the external one, and the quality of information depends on the quality of comparisons with the internal and the external environment and the analysis itself.

In Romania, information on the external environment of SMEs generates serious questions about its strategic and operational characteristics, increasingly urging knowledge of the intrinsic limitations of procedures, tools or management methods and caution in their use, information generated, results, without denying the usefulness of the final suggestions (Nicolescu O., 2006)

In conclusion, one can appreciate that in the case presented, the process of strategic managerial analysis of the SWOT type intertwined with the economic one, provides the most information on the state and degree of operations, the development and the degree of activation or the degree of capitalization of the entity, in order to be able to integrate all external and internal "cratological potentials" (Petrișor I., 2007), so as to highlight satisfaction for employees, value or surplus value for shareholders, customers as well as for other third parties interested in the functionality of the economic entity and the viability of its business.

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Economic Consequences of the COVID-19 Pandemic for the HoReCa Companies in the Romanian Black Sea Coast Area

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Abstract

A social-economic phenomenon with a major impact on economies - tourism is unquestionably anchored to the life of the society with which it is in a direct relation of inter-conditionality. The COVID-19 pandemic has clearly demonstrated that specialized literature has not included so far public health among the determining factors affecting the tourist phenomenon, and implicitly the life of the society. Thus, nations have been able to assess the dramatic economic consequences of this pandemic generated by the Sars-CoV-2 virus for all the sectors for almost a year.

This paper is considering the evaluation of the economic consequences that the pandemic generated in the HoReCa sector of the Romanian coast area. These negative consequences for the business environment have different intensities depending on the geographical areas and we will see that in the coastal area the statistics show a smaller decline.

Key words: HoReCa, COVID-19 pandemic, economic consequences
J.E.L. classification: I15, L83, H12

1. Introduction

The intricate links of the hospitality industry and the economic, social, cultural, and political implications of this industry justify the constant preoccupations for knowing its content, sensitivity and incidents in order to understand its functioning mechanisms.

Tourism – as it is generally understood, focuses on those trips for pleasure or business (*leisure & business*). Marketing activities are considered (information, persuasion, promotion, reservation, mediation, etc.) for the tourists in and to certain tourist destinations, as well as accommodation and related services (Food and Beverages + transport + entertainment) – including, therefore, tourist leisure activities, offering tours and guidance, etc. The tourism industry operates through a vast network of interconnected industries and related services.

The HoReCa sector is the core of the hospitality industry and not its equivalent, however the dynamic analysis of this sector is similar to the industry it belongs to.

In the last year, this sector was one of the most affected by the COVID-19 pandemic, due to the restrictions imposed by the global authorities and it seems to be unable to survive without financial assistance from the states, both in order to save businesses and for employee retention.

The pandemic meant the cancellation of flights, the closure of restaurants and cafes, hotels opened with restrictions, the closure of museums, theme parks, i.e., everything that means components of the hospitality industry and the HoReCa sector.

2. Theoretical background

The current stage of development of the society has subjected the environment to two types of threats: one which is the direct consequence of population growth and urban expansion, of the rapid growth rate recorded in the industry and other fields of activity, increased traffic and transportation and communications systems, the overexploitation of the natural resources, and another one, much

less aggressive and predominantly seasonal, arising from tourism and leisure activities (Buhalis, D. 2000).

Currently, the specialized literature, studies, analyses carried out in this sector revolve around three terms: the tourism industry, the hospitality industry and the HoReCa sector. Therefore, it is necessary to clarify these terms from a conceptual point of view, although there is no common acceptance in this regard.

The World Tourism Organization (WTO) defines tourism as the activities related to people who "*travel and stay in places outside their usual environment (outside the place of residence) - for a maximum of one year consecutively & no less than 24 hours - for leisure, as well as for business and other purposes*".

The hospitality industry is represented by the tourism industry, support activities and conference organization (Stanciulescu G., 2003). Thus, we can identify the following: activities in the service industry - accommodation, food / beverage (catering) services, event planning, theme parks, transport and everything else which means entertainment for tourists. Americans include in their Standard Industry Classification (SIC) most of these activities and entities - from accommodation, to entertainment, carriers and travel agencies. Hospitality therefore includes accommodation and management of restaurants, cafes, catering services (activities in the public food industry - F&B) operations, sales and marketing of related hospitality services, including various forms of recreation offered to the guests / tourists.

HoReCa is the hospitality industry sector which brings together units which (in general) have in common the fact that they prepare and serve food and beverages. It represents the syllabic abbreviation of the words Hotel / Restaurant / Catering and as a term it is used in countries such as Spain, Belgium, Portugal and Romania.

The factors which determine the tourist phenomenon, different in nature and role, have a global action or particularize a certain form or component of the tourist activity (Snak O., 1976) Their mutual inter-conditionality, the simultaneity of their action enhance the final effect, at the same time making it difficult to interpret the contribution of each one (Minciu R., 2000). Economic growth, supply, demographic changes, and leisure (Py P, 1996) are most often presented in the specialized literature as determinants of the tourism phenomenon. However, *the year 2020 has shown that public health is the most important determining factor of the tourism phenomenon*.

Human health is crucial in the decision to travel, in the unrestricted conduct of activities related to the hospitality industry and economic activities in general. Tourism is a human experience, a social behavior, a geographical phenomenon, a business, an income, an industrial type of complex (Cosmescu I., 1998).

Thus, the sanitary constraints due to the COVID-19 pandemic closed or restricted businesses, so that the administrators had to find innovative solutions for the preservation of the businesses. These solutions included: maintaining customer interactions in the restaurants with the help of digital ecosystems - mobile applications, new payment methods, personalized experiences based on consumer behavior or rethinking entire business models. It is taken into account the opportunity of time value of money, according to which a sum of money owned in the present has a greater value than the value of the same sum received at a moment in the future (Munteanu I, Bacula M., 2017).

3. Research methodology

In the present paper, we elaborated a quantitative reasearch, in which we collected information and data from the national and international statistics, from specialized literature and we've analysed these points of view regarging pandemic evolution and its effects on global and national economy.We will carry out an analysis of the Covid 19 consequences at European, national and then at the coastal level, an analysis which will have some particularities.

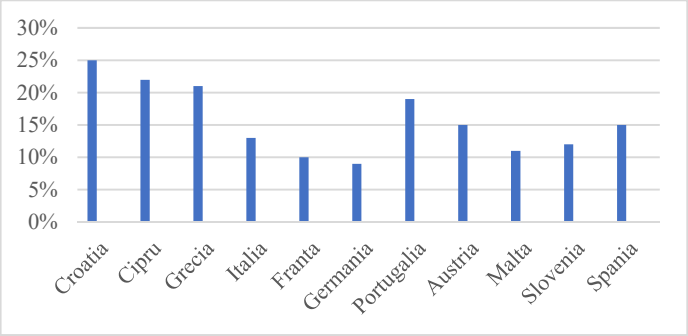
4. European tourism on the brink of survival

The coronavirus pandemic puts an unprecedented, major pressure on the European hospitality industry. The tourism sector includes the HoReCa companies, which are by far the ones which have had and are far from having ended the biggest losses since their establishment.

The suspension of most domestic and international travel has caused a dramatic drop in revenue and has created liquidity problems for all tour operators. The uncertain outlook for both tourists and entrepreneurs leads to short-term planning and requests addressed to the governments to support this industry.

By far the most affected countries are the ones which are most dependent on this sector (Fig. 3.1.) Thus, Croatia, Cyprus, Greece, Portugal, Spain incurred major losses due to this sector, with a share in GDP between 15% and 25%. However, in other countries, such as Italy, France, Germany, Austria, Malta, Slovenia in which the share in GDP is between 10% and 15%, losses are not negligible either.

Figure no. 1. Countries dependent on the tourism industry (share of tourism in GDP)



Source: Own data processing based on Eurostat Information

At the level of the European Union, the contribution of tourism is summarized by several key elements:

- 10% of EU's GDP;
- around 2.4 million entities, of which approximately 90% are SMEs;
- 40% of international arrivals belong to the EU;
- 85% of European citizens spend the summer season inside the Union;
- 12% of the available labor force;
- about 23 million jobs.

The consequences of this pandemic have been major and the worst in the last 50 years since, along with the severely affected economic activities, psychological consequences were added, which have affected people's quality of life, not to mention the dramas that many European citizens have gone through, especially in the countries where many deaths occurred (Italy, Spain, United Kingdom, Germany).

The consequences of this pandemic for the tourism industry can be summarized from statistics at the European level, as follows:

- the reservations dropped by 60 - 90% compared to similar periods in the previous years;
- about 6 million jobs were lost;
- losses for hotels and restaurants due to closure or traffic restrictions amounted to approximately 85%;
- long-distance rail transport recorded losses of approx. 85%;
- cruise ships and air transport recorded a dramatic decrease of about 90%.

This is a summary of the consequences of the pandemic for this sector and that is why the EU will have to find as soon as possible the life-saving solutions for this sector through a series of guidelines in order to ensure a gradual and coordinated reopening of the tourist services and units as soon as the health situation allows it, while ensuring the strict conditions for the protection of the health and safety of the travelers, as well as of tourism employees from all over Europe.

5. Romanian tourism, saved by Romanian tourists

The COVID-19 pandemic was a major shock for the global economy, but also for the national economy. In this context, the hospitality industry, the accommodation units, food units, travel agencies were among the most affected branches of the national economy.

The hospitality industry in Romania has not deviated from the European trend either, being severely affected by the crisis. With several thousand employees, the restaurants focused on deliveries and package orders through their own platforms or partnerships with digital delivery platforms, but also on new lines of business, such as the creation of semi-prepared packages or special menus for certain occasions.

A study conducted by tourism employers' associations, based on the financial statements submitted to the National Agency for Fiscal Administration for the year 2019, estimates that the impact of the HoReCa tourism industry on GDP is 5.07%, 3.42% direct financial impact - added value; 0.91% social impact – employees' salaries and consumption contribution; 0.74% indirect financial impact - suppliers and investments.

According to the official statistics, provided by the National Institute of Statistics, the consequences of this pandemic are reflected as follows:

Table no. 1. The evolution of certain indicators specific to the hospitality industry in the first 6 months - 2019/2020

Indicator	**Decrease**
Total number of overnight stays, Romanian and foreign, in the tourist accommodation units	50%
Overnight stays of foreign tourists	80%
Turnover - accommodation units	36.8%
Turnover – food supply units	33.5%
Turnover - travel agencies	60.5%

Source: Own data processing based on INS information monthly reports

Analyzing the statistical data, we find that Romanian tourists saved Romanian tourism, since 96.7% of arrivals were represented by Romanian tourists, while foreigners represented only 3.3%. Regarding the average length of the stay, in July 2020, for Romanian tourists it was 2.7 days, while for foreign tourists it was only 2.2 days.

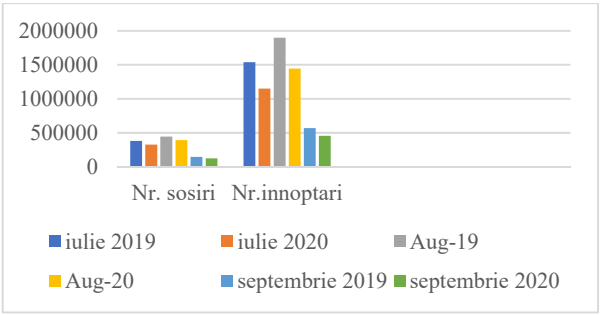
Even so, Romanians rediscovered Romania as a tourist destination, Romanian tourism took advantage of the plus factor offered by the canceling / limiting of the international flights and exploited the huge tourist potential, not efficiently exploited until now.

6. The impact of the COVID-19 pandemic on HoReCa companies in the Black Sea Coast area

The year 2020 was an atypical one from the point of view of the tourist traffic flow, since there were traffic restrictions, areas with different epidemiological risks, so that the evolution of the number of tourists was difficult to estimate.

The 2020 summer season started relatively late, the extension of the state of emergency until the beginning of June being the main reason. Consequently, the summer season totaled 3 months, July, August and September, which led to a decrease of about 30% -35% in the number of tourists compared to the 2019 season. In September, the hotels were opened, had an occupancy rate of about 80%, most tourists using holiday vouchers as a form of payment, which shows that public sector employees were the ones who visited the coast during this period.

Figure no. 2. The evolution of the number of arrivals / overnight stays in the tourist accommodation units on the seaside



Source: Own data processing based on INS information monthly reports

Romanian tourists preferred the Romanian seaside and the Danube Delta for spending the holidays, according to INS data. Thus, in the resorts on the Romanian coast, in July there were 34.6% of the total number of tourists in accommodation units in Romania, compared to 25.5% in July 2019 and in August there were 29.1 % of the total number of tourists in accommodation units in Romania, compared to 26% in August 2019.

Regarding the number of tourist arrivals on the coast in the 2020 season compared to 2019, there is a decrease, but not a significant one considering the declining rates at national or European level. Thus, in July, the number of tourists decreased by 56,608, which meant 14.8%, in August there were 52,417 less tourists (11.8%) and in September 20,671 less tourists (14.2%).

Regarding overnight stays, the situation is similar to the number of arrivals, in the sense that in July they fell by 25%, in August by 24% and in September by 20%.

All this decrease in the number of tourists this year also affected the turnover of the restaurants, this year tourists focusing more on holiday apartments and villas where they had facilities for cooking rather than choosing large hotels. Less affected were the restaurants with terraces, in this case only the limitation of the number of tables caused a reduced turnover.

Another consequence of the pandemic for this sector was the decrease in the number of jobs, this activity restriction requiring practically a smaller number of employees.

7. Conclusions

2020 was a year in which the world changed suddenly, entire fields of activity were resized and struggled to survive. Among the determinants of the tourist phenomenon we can put the public health on the first place, the epidemiological factors being from now on those which will decisively influence the hospitality industry. Europe, the largest receiver and sender of tourists, recorded major losses this year, with a domino effect in several sectors of the European economy.

Regarding the tourist accommodation units, the year 2020 has meant for all Romanian tourists changing their habits in choosing the tourist destination, and here we refer to less occupied areas, houses, holiday apartments, pensions, and small hotels capable of ensuring rigorous health safety and offering food preparation possibilities in the respective locations. All this, to the detriment of large hotels and restaurants which have had to find innovative solutions in order to face the biggest challenge in recent years.

One of the "positive" effects of this pandemic was the fact that Romanian tourists rediscovered Romania as a holiday destination, the coast occupying the first place in the tourists' preferences this year, the decrease in the number of tourists in this area being well below the average recorded by other states or by other areas of the country.

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Preserving and Increasing Students' Motivation - A Case Study

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Abstract

The present paper aims to investigate students' motivation to continue learning as well as their perception on the support provided by their professors during a period of online courses. The questionnaires where developed and the data used was collected from the first-year students of "Ovidius" University of Constanta, the Faculty of Economic Studies. Various cross-disciplinary theories explain that students learning occurs only when properly motivated, especially in a period when social and environmental challenges impact on academic structure. Therefore, we decided to investigate up to what extent this vital component of the learning process was challenged. The questionnaire investigated the problem of motivation for the first-year students to continue their studies and the circumstances which could encourage them to continue their effort. We paid particular attention to the social component, as well as to the special social connections they perceive, or they manage to develop during this period.

Key words: intrinsic motivation, social component, digital learning, academic system
J.E.L. classification: Z 13

1. Introduction

The study was issued from a desire to offer an insight into a period of complex and unique challenges which determined the educational systems all around the world to adapt and adopt several unprecedented changes, among which the online system of teaching as a desperate solution for creating a continuity for the academic learning system. I consider this solution as being particularly challenging for the first-year students, as they did not have the opportunity to meet each other in real life before or to experience in most cases the traditional education system of a university. In their specific case, despite their initial expectations, the academic life started online, and it is particularly interesting to discover what happens behind the screens and how they perceive this new reality they have been confronted with. At the same time, we consider interesting to draw a parallel between a previous case study we carried out in April 2019 and see how the answers to some of these questions changed from one generation to another and from one period to another.

2. Theoretical background

Why motivation? Well, we are all aware that behind the learning process lies motivation. It initiates the internal "procedure", it "makes things happen" and "it nourishes our entire internal mechanisms". Diverse motivational constructs study the connection between cognitive abilities and students' academic achievement showing that motivational factors push academic results beyond the borders of pure intelligence. To a larger extent, learning goals, specific motives and task values more than performance factors can predict better results. Several key instances determine the existence and the type of motivation developed in students: student, educator, content, method process and environment. During the learning experience, the exposure of students to an as large as possible number of variables determines an optimum level of motivation, in response to the increasing diversity of the learning styles, cultural backgrounds and individual various experiences displayed by our students. Educators go beyond their traditional role of providers of knowledge and become creators of accessible environments, in their desire to facilitate students to learn as much as

possible. The use of a comprehensive, long range educational plan and the visualization of their future professional development would contribute to increase their self-confidence as well as their interest in education. They will be less inclined to abandon when they encounter difficulties. The transition process between education /school to career/work will be more fluent and less disruptive and their chances to adapt will increase.

Students are the key factors in any educational process, they are the "raw materials" and at the same time "key members of the labor force involved in creating education" (Lengnick-Hall and Sanders, 1997, p. 1335) and their motivation is determined by several factors which are generally grouped under two headings- intrinsic and extrinsic. Intrinsic motivational factors are tightly connected to internal rewards and it "is important for task persistence seeing a project through and ensuring exploration of solutions" (S.W. Russ, 2011, p. 433). Intrinsic motivation goes hand in hand with a positive affect and a state of well-being. In the case of students, intrinsic motivational factors at work include curiosity (as a desire to discover more relevant information about their interests), social interaction with the academic environment, being challenged by the topics introduced to them and involvement. Intrinsic motivation is tightly connected to two psychological needs the need for autonomy and competence (Deci and Ryan, 1985, p. 35). Extrinsic motivational factors include competition, (compliance to the rules requirements etc.), recognition (from the group), as well as work avoidance (providing the exact amount of work necessary). As expected, externally motivated students present a greater risk to lower quality performance than those who are intrinsically motivated.

The concept of *deep learning* - deep approach, as discussed by Beekes (2006, p. 27), Fullan and Langworhty (2013, 2014, p. 33) and Pauline (2013, p. 2), in which the student engages profoundly in the process of learning, is tightly connected to students' intrinsic motivation. It is derived from students' interest in the process of learning. This concept stipulates the ideal situation of a more independent and self-regulated student who is actively involved and actively seeking which skills and abilities to develop, who is committed and even passionate to study. At the beginning of studies, however, the typical profile of a student would rather be closer to an adaptive or interested profile, in need of more support and guidance.

Individual and social factors have a considerable impact on students' academic motivation. In this respect the probability of finding a suitable job after graduation, expectations about the future, all increase or decrease the willingness to engage in a learning process. Students' state of wellbeing or life satisfaction, the meaningfulness of life, their mood, as well as their health, financial security and social contact need to be put in a direct relationship with their intrinsic motivation. Beyond the quality of teaching, students' satisfaction is determined by the capacity of educators to show compassion understanding and support for the personal difficulties encountered by their students when these surface in the process of education.

3. Research methodology

The present study has as starting point a micro-level analysis of the social and psychological factors involved in preserving and increasing our students' motivation to pursue their studies, this provides useful information in designing a certain direction on the orientation, the methods and of the curricula used. At the beginning of the first semester of the academic year 2020-2021, I conducted the present survey on a number of 86 students enrolled in the 1st year at the Faculty of Economic Sciences, at "Ovidius" University of Constanța. The average age of the respondents is around 18 years and the structure and size of the groups involved is similar.

The survey contained 23 questions dedicated to the challenges encountered in the use of the virtual instruments and platforms dedicated to the courses, the relationships established with the other students and the professors. The ability to set social connections the risks and the fears students predict for their academic education as being associated to this online period. Respondents were also offered the possibility to suggest adjustments to be brought to the present e-learning online system. The survey contains closed-ended questions and opened-ended questions. The answers are anonymous and students were offered the possibility to avoid answering uncomfortable questions in the survey. The average time to answer the survey was 11:14 minutes.

4. Findings

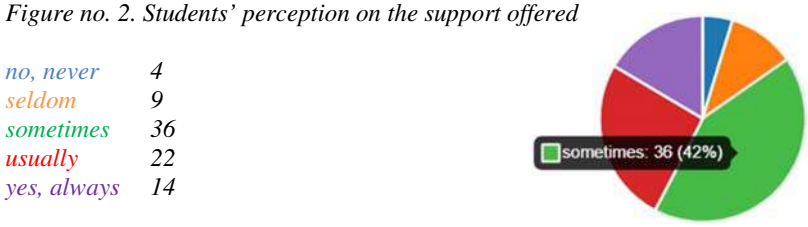
When asked about the biggest challenge they have been confronted with during the past few weeks the students were biased to choose between access, inclusion or connectivity (20) and distractions and competing priorities (21). In my previous study – "Teaching and Learning on the Edge of a Pandemic: Providing Continuity and Re-building an Online Learning Community" (2020, p. 254), I noticed that the same challenges of access, inclusion or connectivity and distractions and competing priorities were also top-rated, considering the efforts made to increase the digitalization of the systems all around the world, this issue is quite surprising and it proves that the efforts made are, at least until now, insufficient to provide a proper continuity of the educational system.

As we all know, 2020 proved to be a period dominated by many social turmoil and fears, the biggest fear the respondents selected from the possible answers to the question what has been bothering you during this period of online courses, surprisingly, only one answer was "fear of sickness", the other overwhelming number of answers were given to: "fear of exam failure" (54) and "fear of inadaptation to the system" (19). "Other fears" registered 11 answers. Given the fact that the respondents are first-year students we consider their answers as a sign of normality under the present circumstances, as it is obvious that students overcame their socially inoculated fears and are rather focused on learning and accumulating proper knowledge than on external disruptive factors.

Undoubtedly, even if our social life was radically transformed and social connections are also modified and reduced to online communication, social connection during online teaching still plays an important role especially in the case of students who have never had the chance to meet each other or to meet their educators in real life. 56% of the respondents chose "yes" when asked if they felt any social connection during online teaching.

As illustrated below, when asked about being offered the necessary support they needed during online courses, students' answers varied from "sometimes" (36) to "no, never" (4).

Figure no. 2. Students' perception on the support offered



Source: Generated on Microsoft forms, based on students' responses

When asked about whether they continue to feel motivated to continue their studies, 41 students chose "motivated" and 9 "very motivated" while 17 chose "less motivated" and 3 "unmotivated". To the following question "What could motivate you better? Please name or describe a factor which could be a strong motivation for you"- the answers were very varied ranging from "Going to school instead of attending online classes", "attending the classes in person", "I felt more motivated with hybrid type of classes", " experiencing the university life, not on-line", to more distant projections of their future career as "in the thought about what I will become after graduating this school", " my purpose in life is to become one of the best professionals" or "to think about my future". Other answers are focused on "face to face communication", "more dialogue, more communication", as well as "teacher support" or "better socialization with colleagues and professors", "knowing that the work I'm doing makes difference in some way". 57 of the respondents acknowledged the existence of an online learning community in the courses they attended, while 25 denied the existence of this community.

In their answers to the question concerning a better motivation to pursue their studies, some of the answers indicated the lack of time to prepare or the number of assignments as being a demotivating factor. These answers can be put in a direct relationship to the question concerning the amount of time necessary to prepare their daily tasks, where most students- 39, indicated two to

three hours as the average, while 26 of them chose four to five hours. This would amount to a number of hours varying from 10 to 25 hours of independent study per week. While 17 students opted for six hours or more.

Figure no. 2. The number of hours of independent study per day



Source: Generated on Microsoft forms, based on students' responses

In order to investigate students' perception on the relationship with their professors they were asked to indicate if they felt encouraged during online classes by the attitude of a professor, 66 of them opted for "Yes", while 18 opted for "No". This answer can be coupled with the options expressed to another question "How would you describe the relationship with your professors?" In this case 14 opted for "Excellent" and 50 for "Good", while 5 for "Poor" and 2 for "Very poor". Considering the above expressed answers, we may conclude that the perception on the relationship student-professor is positive and that the efforts made by professors to reach their students were appreciated and efficient, undoubtedly the human component of the learning process was present.

Student satisfaction is a further section of our investigation dedicated to the perception students have of doing important things at school in this case 48 of them said "Yes". When asked about the necessary support they needed during online courses students' answers varied from "sometimes" - 36, to "no, never"- 4. Students' desire to feel involved, working groups, belong to a specific group and to learn from each other is validated by their choices when asked about the improvement which can be brought to academic courses, 51 selected "more group work", 18 opted for "more one-to-one activities". The feeling of accomplishment which should be felt by the participants to any course is shared in the case of the online courses by 39 students while 46 denied having experienced this feeling. Considering the role played by accomplishment in the overall motivational process of learning this is quite worrying, and adjustments need to be made.

5. Conclusions

The digital world as it is experienced by learners worldwide nowadays is less generous in terms of social interaction and real-life learning techniques. Although alluring and offering numerous options to connect to each other, as well as a considerable amount of easiness of access, it limits the social dimension of the human component. It is beyond any doubt that a well balanced and a carefully crafted structure of the online resources can encourage interaction, collaboration, motivation and autonomy in the case of academic learning. The study load component should also be attentively observed as, in the case of social distancing, educators are most often tempted to increase the amount of assignments, following the idea that "more is better" or considering that students have more time to dedicate to study. The use of digital technology in academic education represents a very useful tool offering an ideal testing ground for innovating educational methods. However, education is deeply rooted on a social ground and built by social interacting factors, therefore, any educational digital tool needs to be based on a complex of social cultural forces in order to motivate students and create the desired state of comfort while learning**.** Students' academic performances as well as their motivation to continue their studies go hand in hand with the social relationships they are able to develop with the academic environment.

Getting students involved in digital solutions for the courses ensures students' engagement and enthusiasm at all times. Digital skills will "push" them to question the nature of their own learning and motivate them to get involved and voice their opinions in a more "permissive" environment. A further step will be provided by adaptive technologies which promise to prevent students from feeling discouraged or bored as they sometimes feel in a one-size-fits-all traditional approach. On the one hand students are eager to receive personalized feedback on the basis of their performance,

on the other hand a re-personalizing process of education in which professors are provided long term data on students' performance, in which students are placed in a broader context and seen along their continuous learning process, is needed. During this period of online education both students and professors were taken out of their real-life context and pushed into an area none of them was prepared for. As a result, frustration and demotivation occurred on both sides, while numerous complaints on feeling disrupted or confused or even lost can be heard from behind the screens. Technology based teaching and learning are a reality of our days and the improvement of learning outcomes and learner satisfaction are a permanent concern for their educators.

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The HACCP System: An Analysis of Its Benefits and Shortcomings in Business Practices in the Era of the SARS COV-2 Pandemic

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Abstract

The HACCP system is the world's leading food quality assurance system. Its history and benefits are widely recognized and further debated. However, in the context of the current SARS CoV-2 pandemic, few studies address the extent to which companies in the food industry are prepared for risks such as the deliberate release of this virus into the food circuit. Acts of terrorism of this kind are not new to democratic states, and their impact and prevention are the subject of other approaches, namely TACCP (Threats 'Analysis and Critical Control Points) and VACCP (Vulnerabilities' Analysis and Critical Control Points - focused on vulnerabilities in the food chain). This paper aims to discuss the characteristics and limitations of the HACCP system, as well as the paradigms proposed by the new approaches. We believe that this theorization is necessary to signal the need for increased efforts to monitor threats that may come from criminal organizations.

Key words: HACCP, TACCP; VACCP; risks in the food circuit; SARS CoV-2.
J.E.L. classification: Q18

1. Introduction

HACCP is often considered an international and institutionalized certification whose purpose is to maximize product safety in the food industry (Kafetzopoulos, Evangelos & Kafetzopoulos, 2013).

Companies adopting HACCP must design effective controls to reduce the risk of contamination acceptable levels, which is essential to avoid potential hazards that can lead to unsafe products. The fundamental function of HACCP is to control the critical stages of the production process, thus giving producers the opportunity to control the quality of production, rather than simply inspecting finished products (Arvanitoyannis and Kassaveti, 2009). In this way, manufacturers have the chance to apply a scientific methodology to identify and prevent potential hazards and to avoid products that do not meet scientific parameters. In the literature on food safety management, numerous studies have confirmed that HACCP not only guarantees the safety of finished foods, but also provides significant protection for both consumers and companies (Kafetzopoulos et al., 2013; Vilar et al., 2012).

2. Literature review

The year 1975 marks, in the United States, the incipient thinking about food risks. There were published four papers which included "HACCP system" notions in google academic. Thus, Hopkins W.C. Jr., following practical research at Louisiana State University and Agricultural &

Mechanical College, published The Application of the Haccp Concept to the Breaded Shrimp Industry (Hopkins, 1975).

Quinn T., director of the Division of Regulatory Guidance of the Bureau of Food and Drug Administration, found the food area vulnerable and, through his presence at the 18th Annual Educational Conference of the Food and Drug Law Institute, Inc. and the Food and Drug Administration advocated for the situation in the FDA Plans and Activities in the Food Area (Quinn, 1975).

On the opposite, only in 2020 (until November) there were 3200 works that address the concept of "HACCP system". In order to better understand the magnitude and importance of product quality, in the period 1975 – 2020, researchers worked through a significant number of publications. Thus, of more than 24300 articles that include the phrase "HACCP system", approximately 22400 refer to "HACCP system food" and of these almost 17900 papers cover "HACCP system meat". Sanitary veterinary expertise eliminates, through specific controls, the risk of zoonoses (Sanitary Veterinary Norm, 2002). It is noteworthy the existence of numerous articles that refer to the implementation of the HACCP system, respectively 17600 titles in the same period.

Trafialek and Kolanowski researching the food business environment in Poland, concluded that only in the meat and beverage sector, the average results of audits in certified enterprises were significantly higher than in non-certified ones. The authors also specify that "the functioning of HACCP principles in practice was assessed much lower than the system implementation in all food business groups"(Trafialek and Kolanowski, 2017). If certification schemes are temporary, the company does not have excellent food safety practices.

Any research starts from a level of knowledge, to which it brings arguments according to studies. In this sense, the 18700 research works of the "HACCP system review" are important from the period between 1975 and 2020.

3. Research methodology

In this paper we aim to identify the characteristics, understood the benefits and limitations of the HACCP system, as shown in the literature, and to highlight how other approaches in the field of food safety can contribute to better risk management in the context of the current pandemic. The study thus proposes a qualitative analysis of the literature on HACCP.

HACCP, as a preventive control system, refers to food safety. The implementation of the HACCP system is useful for practical reasons; for example, the manufacturer cannot afford or control the finished products completely. The study aims to identify the characteristics of this system. As a result, exposing the benefits and limitations of the HACCP system has the role of awareness and action in favor of quality. The review of the scientific literature in the field makes it possible to highlight the general and particular aspects of the accumulation of procedures applied systematically in practice, adequate scientific and technological knowledge to plan, control and document the production of food safely.

HACCP should consider all types of potential food safety hazards - regardless of their type (biological, chemical and physical) - that may occur naturally in food, as a result of technological processes or as a result of exposure to the environment, or accidentally. These issues cannot be covered without a proper bibliographic study.

4. Findings

One of the most important and complex paradigms in operations management is the role of safety management systems in business practices. However, while a wide range of studies have considered the safety of production processes in relation to workers, little research takes into account the implications of management systems for product safety. Investments in the implementation of HACCP require a variety of financial and non-financial resources, including machinery, equipment and human resources, but the costs of implementation as well as the expected benefits of HACCP are not yet clear.

Small companies may be overwhelmed by the trade-off between profit uncertainty and risk reduction due to their low production volume (Wengle, 2016). A case study of Polish dairy companies showed that the implementation of HACCP could have some negative effects, such as increased administrative costs as well as unit costs, but at the same time, the implementation of such a system can lead to increasing employee autonomy and improving product quality, as well as documentation control (Górna, 2008). The above disadvantages seem to conflict with the idea that product safety management contributes to the management of a company's operations (Marucheck et al., 2011). Therefore, it is necessary to use a more objective approach to identify the true causal relationship between the implementation of HACCP and its financial and operational results.

From an operational perspective, HACCP was developed as a safety management system focused on production quality control. Initial research in the field of the relationship between improving quality and business performance has highlighted various advantages of such safety management, such as improved profitability and reduced costs (e.g., Anderson et al., 1994).

HACCP certified firms can gain a competitive advantage in the market due to the low number of operational accidents as well as product recalls (Bai et al., 2007). Firms that have not implemented HACCP are more likely to have their products contaminated during the production process because they do not manage systematically the potential risks of food hazards. In other words, companies that adopt HACCP may face fewer sanctions resulting from food safety violations and lower long-term product withdrawal costs. Operational improvements resulting from the implementation of the HACCP may also lead to higher operating revenues compared to entities that do not adopt this system.

Nganje et al. (2006) found that small meat companies in the United States that implemented HACCP became more profitable than those that did not implement the system. Another study that focused on the effectiveness of quality systems (ISO 9001) and food safety (HACCP) indicated that the effective implementation of HACCP has contributed to the profitability of small and medium enterprises in the Greek food sector (Kafetzopoulos and Gotzamani, 2014).

However, as HACCP was never designed to operate for any unidentified hazard, it cannot be considered a sufficient model for food safety. Consequently, the food safety management system based on HACCP (Hazard Analysis Critical Control Point) cannot counteract the dangers associated with the atypical COVID-19 pandemic, forcing the food industry to change its food safety management systems at different levels.

Currently, food sector organizations face a unique challenge in controlling COVID-19 exposure. Not only must they keep their facilities clean and employees safe, but they must also ensure that they do not create additional exposure for their suppliers or customers, and thus dangerous incidents can overlap. This generates an overlap of responsibilities, of work tasks. At the same time, the possibility of intentional transmission of COVID-19 cannot be ruled out, and this remains unidentified in the HACCP approach. As HACCP is only concerned with food safety (prevention of unintentional contamination of food), it addresses only one of the 4 elements of a food control system, which are:

(1) Food safety: prevents and combats intentional, ideologically motivated alteration that causes food to be harmful to health.

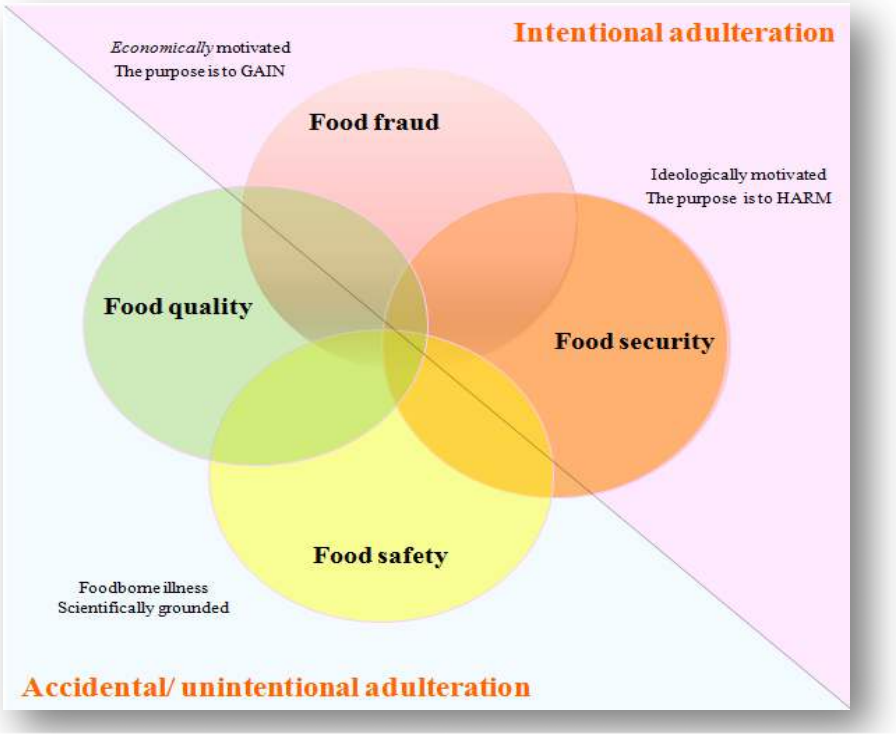
(2) Combating food fraud: refers to the identification of intentional, economically motivated alteration that may cause the products to be harmful to health.

Thus, some issues related to food fraud may overlap with the definition of food security, while others may be an issue of food quality.

(3) Food safety: refers to unintentional spoilage of food, which causes food to be harmful to health.

(4) Food quality: delivery of attributes that influence the value of a product to consumers (figure 1).

Figure no 1. Prevention of unintentional contamination of food



Source: Wayne Labs, 2016

Disadvantages of the HACCP system include the following elements:

- involves a multidisciplinary approach that is not implemented by organizations in general, and requires the participation of all those involved in the food chain
- involves significant time resources and various cultural changes, which are difficult to achieve
- the system involves continuous updates and notations

Addressing intentional threats that may come from criminal organizations, focused on food fraud or simply gaining leverage by making people sick through food, is the basis of Threat Assessment Critical Control Point - TACCP.

TACCP is defined by PAS 96: 2017 as "the systematic risk management by assessing threats, identifying vulnerabilities and implementing controls throughout the production process". TACCP-controlled threats include economically motivated disruption (EMA) and malicious contamination, blackmail, espionage, counterfeiting and cybercrime. TACCP focuses on identifying specific threats of criminal and harmful activity that may affect food safety (Swainson, 2019). This threat analysis follows HACCP principles and involves building a TACCP team, defining the scope, reviewing current TACCP measures, characterizing threats, developing strategies to mitigate these threats, identifying new or emerging threats, implementing, recording and documenting and auditing / auditing / review (Campden BIS, 2019). The questions and considerations in the TACCP are detailed for different products, spaces and businesses, including security of personnel, control of access to spaces, services, processes and materials and safe storage of transport vehicles (Campden BRI, 2019).

The key to understanding TACCP is to think the whole food circuit from the perspective of a criminal and thus be able to identify and strengthen critical control points. In the established literature, the acronym TACCP is not widespread, and most articles address the phenomenon rather from the perspective of food fraud. However, the cases of criminal episodes in this regard are so important that the Federal Drug Administration (FDA) of the United States has imposed new rules

for processors since 2016 to prevent criminal contamination of food (Spielman, 2019 and Flynn, 2016 in press); and China is the second case of food poisoning in a fast food chain in the last18 years, in international media reports (Wenwei, 2002). Therefore, the phenomenon of organized crime, including manifested in fast-food chains, must not only be unanimously recognized, but also be met with tools in line with the challenges that may arise. All the more so in the context of the current pandemic, which is difficult to control and in terms of involuntary transmission of the virus, additional protection measures are required along the food circuit.

The VACCP approach is complementary to the TACCP and considers how exposed or susceptible the organization is to food fraud incidents and how the prevention of intentional, economically motivated alteration can be achieved. Qualitative assessments (probability and impact) of threats are similar to those of the TACCP. VACCP can be used practically in the wider supply chain.

While the focus of these approaches is on the behavioral component of the food quality and safety assurance process, traditional methods of eliminating viruses from the diet remain the same:

- Processing of foods at high pressures (300-400 MPa and 522° C for 5 minutes, depending on the type of virus) - results in inactivation of viruses in foods such as fruit juice, shrimp, fish and prepared meat;
- Irradiation of food at doses from 2.7 to 3.0kGy - deactivates food viruses - valid for spices, fruits and vegetables;
- Heating to high temperatures (70° C) - may inactivate viruses, including Coronavirus. Coronavirus is active and stable even at -20 ° C or less for 2 years. Refrigerated food storage (4-8 ° C) does not inactivate Coronavirus.
- Ultraviolet light (245-285 nm) - can protect some foods such as juices, milk, eggs, fruits and vegetables
- Use of chlorine (0.5 mg / L), ozone gas (concentration 20-25 ppm) and chlorine dioxide (2.19 mg / L) or 0.1% sodium and calcium hypochlorite for 1 min - can inactivate the virus in water and the surface of packaged foods (Jawed et al., 2020).

5. Conclusions

Although the HACCP system can bring important benefits such as improving profitability and reducing the costs of a company in the segment, its major disadvantage is that it cannot prevent food fraud or various criminal acts, which is why TACCP and VACCP approaches are needed-taking into account incidents of food fraud and intentional food contamination, together with an analysis of the vulnerabilities where these threats may occur.

These approaches become all the more relevant in the context of the current pandemic, despite the fact that methods of preventing incidents remain the same (various forms of heat treatment, irradiation, use of substances that inactivate viruses, generally). Therefore, the novelty and necessity in preventing various forms of intentional or involuntary contamination along the food chain lies in the behavioral component of actors potentially involved in food processing and management - beyond the classic HACCP scheme, but following its lines nonetheless.

6. Acknowledgement

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Factors Influencing Morality

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Abstract

Morality is a psychic trait specific to each individual. Morality was reflected by a morality test, and the variables followed were gender, age, school, occupation, families, condition and causes that led to involvement in volunteering. In order to highlight the characteristics that influence morality, a questionnaire was applied to 384 individuals and the multinomial logistic regression analysis was performed using SPSS. The results indicated that demographic variables and volunteering significantly influence the level of morality.

Key words: morality, questionnaire, demographic variables, multinomial logistic regression.
J.E.L. classification: C35, C80, C87.

1. Introduction

Morality is a specific feature of each individual, based on a certain philosophy, religion, education, culture. Morality influences the way we feel, act, and think about "good" and "bad."

The literature on morality explains the emergence of moral norms based on the process of natural selection. An individual with a high morality can give up personal benefit in favor of the benefit of other individuals, and in this case would have a reduced ability to adapt compared to those who receive the benefit. In this context, the purpose of this paper is to highlight the factors influencing morality, especially that morality depends on many characteristics and influences many aspects.

In order to do this, a questionnaire was realized, being applied to a random sample of 384 people practising volunteering. The data were analyzed using descriptive statistics and multinomial logistics analysis and SPSS software. The variables used are demographic characteristics (age - intervals), gender, studies - high school, post-secondary school, college, postgraduate course, master, doctorate) and volunteering (period when working as a volunteer, marital status, causes and benefits of volunteering, field in which he perform as a volunteer, and occupation) and morality level (score for morality test).

Therefore, the article is structured as follows. Section 1 highlights the relevance of topic and the main aim of our research, section 2 is dedicated presenting the theretical background regarding morality, section 3 presents the data and methodology, and the last part reflects the main results and conclusions.

2. Theoretical background

According to the dictionary, morality is a perception of behavior that differentiates intentions, decisions and actions. The etymology of the word moral is the Latin moralitas, which means manners, character, appropriate behavior.

Morality may be used in a descriptive and normative sense. In a descriptive sense, morality refers to certain codes of conduct presented by a society or a group or accepted by a person for his or her own behavior. In a normative sense, morality refers to a code of conduct proposed by all rational people (Gert and Gert, 2020).

In general, the definitions of morality have been directed towards the notion of moral judgment (Hare 1952, 1981). Sinnott-Armstrong (2016) argues that morality itself is not a unified field. Greene (2013) argues that morality is a set of psychological adaptations in order to allow selfish individuals to reap the benefits of cooperation. Haidt (2011) argues that moral systems are sets of values, virtues, norms, practices, identities, institutions, technologies, and evolved psychological mechanisms that work together to suppress or regulate self-interest and make cooperative societies possible.

Kohlberg (1963) studied the growth and development of morality and the gradual formation of consciousness and concludes that morality has three levels, each with two stages of development: i) level 1 with stage 1- orientation towards submission and punishment and stage 2- relativistic instrumental orientation corresponds to conventional morality (4-10 years); ii) level 2 with stage 3- orientation towards being a good child and stage 4-orientation towards order and discipline, corresponds to conventional morality (10-13 years) and iii) level 3 with stage 5 - orientation towards legality and stage 6 - moral judgment based on personal conscience, corresponds to conventional morality (adolescent, maturity).

3. Research methodology

In order to assess the extent to which the value of the morality test is influenced by demographic variables and volunteering, a database was developed in the SPSS program package and the multinomial logistic regression analysis was performed. The sample was formed from 384 indivudulas practicing voluntering random selected. The analyzed variables are age (intervals), gender, studies (high school, post-secondary school, college, postgraduate course, master, doctorate), period when working as a volunteer, marital status, causes and benefits of volunteering, field in which he perform as a volunteer, and occupation, and the dependent variable is the morality level, considering the value of the morality test.

Multinomial logistic regression is a statistical method used to predict categorical placement or the probability of categorical membership. Independent variables can be either dichotomous or continuous (interval or scale ratio). Multinomial logistic regression is an extension of binary logistic regression, allowing more than two categories of the dependent or result variable (Starkweather and Moske, 2011).

4. Results

As it can be seen from Table 1, for the chosen sample, the minimum level of the morality test rate was 0, the maximum level was 3, and average value was 1.7474, with a standard deviation of 0.87.

Table no. 1. Descriptive Statistics

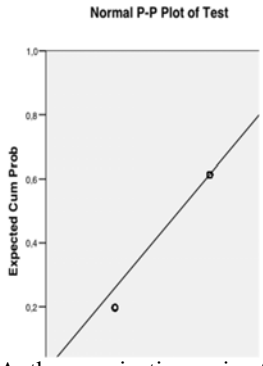
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
sexul	384	1	2	1,73	,442	,196	-1,065	,125	-,869	,248
stareciv	384	1	3	1,72	,709	,503	,454	,125	-,932	,248
inceputul	384	1	2	1,35	,476	,227	,648	,125	-1,588	,248
familie	384	1	3	1,08	,296	,088	4,023	,125	16,991	,248
şcoală	384	1	6	3,61	1,240	1,538	-,106	,125	-,483	,248
ocupatia	384	1	5	2,09	,779	,607	1,632	,125	4,003	,248
cauzele care v-au determinat să vă implicaţi ca voluntar	384	1	7	2,80	1,433	2,053	,923	,125	1,067	,248
timp	384	1	3	2,23	,720	,518	-,378	,125	-1,009	,248
Varsta	384	1	6	3,23	1,198	1,434	,142	,125	-,421	,248
starea	384	1	3	2,01	,511	,261	,017	,125	,866	,248
Test	384	,00	3,00	1,7474	,87688	,769	,305	,125	-1,266	,248
Valid N (listwise)	384									

Source: Authors projection, using SPSS

Furthermore, variables (gender, school and time) indicates negative asymmetries, with a deviation to the left. The rest of the variables have positive asymmetries, deviating to the right (the variable value of the morality test, although it has a positive value, is close to 0, which is more like a normal distribution, the other variables have distributions that differ significantly from a normal distribution). Regarding the Kurtosis indicator, the variables family, occupation, causes and status register values higher than 0, indicating a stronger grouping of values around the central value, showing a leptocurtic distribution, and for the rest of the variables are negative values, indicating a weaker grouping around the central value, the frequency curve being more flattened, therefore, it has a platicurtic distribution.

Figure no. 1. P-P Plot



Source: Authors projection, using SPSS

From the P-P diagram it is observed that most of the values of the morality test are close to the average, closely following the points of the normal curve.

All variables have multiple response variants, so dummy variables were created for each variable. A multinomial logistic regression was performed. In Table 2 were presented informations on the estimated model.

Table no. 2. Model Fitting Information

Model Fitting Information

Model	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC	BIC	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	604,679	620,460	596,679			
Final	488,132	977,364	240,132	356,547	120	,000

Source: Authors projection, using SPSS

It is observed that the statistical value of 2Log Likelihood is significant. The simplest model does not contain any of the predictor variables, only the constant. The final model uses the grouping of the best predictors, which is significant. The results obtained in Table 3 and Table 4 provide information on the degree to which the estimated coefficients explain the phenomenon studied more efficiently.

Table no. 3. Goodness of Fit

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	759,125	384	,000
Deviance	196,677	384	1,000

Source: Authors projection, using SPSS

Consequently, we deduce that there is no significant difference between the 2 models and we can consider that the estimate is correct.

Table no. 4.Goodness of Fit

Pseudo R-Square

Cox and Snell	,607
Nagelkerke	,714
McFadden	,492

Source: Authors projection, using SPSS

Regarding the correlation between a set of predictors and the category variables, in our case, 3 calculation methods were used and we notice that the result has values higher than 0.5. This result indicates a combined overall correlation between the independent variables and the dependent variable.

The significance of each regression coefficient is given by the Wald test. In our case the significant level of this test (Sig column) is less than 0.05, so the parameters can be kept in the model.

Table no. 5. Classification

Classification

Observed	Predicted					
	satisfactie	autorealizare	socializare	dezvoltare	implinire	Percent Correct
satisfactie	258	0	5	8	0	95,2%
autorealizare	17	16	1	3	0	43,2%
socializare	18	0	15	0	0	45,5%
dezvoltare	14	0	0	24	0	63,2%
implinire	0	0	0	0	3	100,0%
Overall Percentage	80,4%	4,2%	5,5%	9,2%	,8%	82,7%

Source: Authors projection, using SPSS

Table 5 presents a classification of the accuracy of the estimates. Given the parameters obtained, it shows what predictions could be obtained given the independent variables and how accurate these predictions could be.

5. Conclusions

Morality is a trait that depends on many characteristics and influences many aspects, so it is important to know the factors that influence this trait, in oder to can intervene.

Following the analysis of the sample of 384 individuals who practice voluntarily, it was found that morality is normally distributed, and voluntary actions, and demographic traits significantly influence the level of morality.

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Sustainability in the Higher Educational System in Romania

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Abstract

Sustainable development plays an important part in the life of EU. Higher educational institutions from member states, such as Romania need to make sure that they can play their part in the promotion of sustainable development. The purpose of this article is to make light in the way universities understand their role in promoting sustainable development and also, to share light over the Romanian market and its needs in coordination with the sustainable development efforts of Romanian universities.

Key words: sustainable development, sustainability, higher educational system, universities
J.E.L. classification: I20, I23, I25

1. Introduction

Defining and approaching sustainability vary depending on the vision and interest of the research. Some insist on the ecological aspects of sustainability, others on the understanding of social and economic viability. Sustainability has become one key criteria for managers and defining sustainable development is not an easy task, having to deal with arguments between what is "right" and "fair", ethical dilemmas in choosing the right path in developing an organization. The Romanian educational system has been subjected to different pressures in the last 10 years, thus its managers need to find the right path in correspondence with the guidelines of the Talloires Declaration.

2. Literature review

The concept of sustainability is thus an advanced approach debated in a period in which the environmental problems caused by human activity require serious and advanced solutions.

One of the most frequently cited definitions of sustainable development is the one proposed by the UN World Commission on Environment and Development in 1987, chaired by the Prime Minister of Norway, in 1987. According to the Brundtland Report, sustainable development means "*ensuring development that meets the needs of present generations, without compromising the ability of future generations to meet their own needs*". (Deneș *et al*, 2011, p.5)

The concept of sustainable development has initially had its generally accepted goal, the reduction of human ecological footprint. However, as time went by promoting environmental integrity opened the door for other social values such as equity between nations, individuals and generations. Thus, time and place took an important role into accepting, promoting and maintaining economic efficiency. (Bădescu, 2011, p.7)

3. Research methodology

The present article aims to answer more than one research question, but all of them are centered around the research problem of identifying the defining factors for sustainable education and applying them to the Romanian educational system. The quantitative data gathered can be defined as secondary data, since it is the data gathered by the Romanian National Ministry of Education regarding the evolution of the number of students. However, the present article also aims to

underline a new research method, by developing its own approach regarding the identification of new steps in developing a plan for sustainable development for the educational system. Identifying the instruments into developing plans for sustainable development can be considered itself as a new research method designed to help educational researchers around the world.

4. Defining factors of sustainable education

The goal of sustainability is to ensure sustainable development. The European Union has set its goals regarding sustainable development such as:

- limiting the negative impact of climate change and its costs;
- minimizing the negative impact over the economy, society and environment of the transport system. This system is exceptionally important for our society in order to satisfy the economic, social and environmental needs of the European citizens;
- promoting durable consumption and production models, that are not affected by major economic, social and environmental disruptions;
- promoting a sustainable health system in a way which underlines the importance of equity and improves the protection capacity against risks that may endanger the health system;
- creating a society of social inclusion- thins means promoting solidarity within generations, ensuring security and increasing the quality of researchers lives as a condition for increasing individual wealth.
- promoting durable development on a large scale, ensuring that the internal and external EU policies are in accordance with sustainable development and the international agreements of the EU.

Thus, the educational system is one of the key pillars into ensuring these EU objectives are met and at the center of it is the higher educational system which has the ability to support the creation of more professionals in one area instead of another.

There are various factors to which the current literature refers to, when explaining sustainable development. These factors can be comprised such as:

4.1. Perception – when a sustainability project has success within an educational system such as the higher educational system there has to be a high level of acceptance especially within the institution. One of the main reasons for this is the fact that such projects need long term development, and thus working with all the people involved requires resistance to criticism or implies the capacity of explaining its importance over and over again. Another thing regarding the perceptions of such projects is the fact that most educational managers are in office for a limited period of time so the perception of the viability of the project needs to have an impact on the next educational managers as well, due to its long-term nature. (Thomas *et al,* 2012, p.2)

4.2. Approval – in accordance to the perception factor, the initiatives need to be supported by the administrative leaders regardless of the institution they represent. In their commitment to long term projects, the educational leaders need to agree on the future of the educational system and the way it can help achieve the E.U. goals regarding sustainable development. They also need to agree upon each higher education institution's role into putting this in practice on a long term. The Talloires Declaration stands as a bench mark of good practices between university leaders and it can help set the foundation of sustainable development within the high education system in each E.U. member states. (Deneș *et al*, 2011, p.11)

4.3. Beneficiaries - the sustainable development projects need to bring added value with each of their programs, and departments, administrative bodies, and each individual that is involve in the higher educational system will benefit from them. The initiatives need to have nature that is accepted by everyone regardless of the field, rather than have an image of being impost by a certain interest group, or have a perception of being "politically correct". All state holders must impower and straighten each program in a way that benefits the haul institution.

4.4. Compatibility **-** Each higher educational institution has its own characteristics, spirits of a culture, it functions in a different era and in a different community, where individuals tend to have different attitudes and aspirations. Many higher educational institutions have their own history and their own organization culture. Thus, each educational organization has its own "personality", its

own story and should try to feel in the ecology of higher education. Therefore, each initiative regarding sustainable development should be based on the identity of the institution.

4.5. Involvement – As it has been explained before, the sustainable development initiative in the higher educational system needs the support of all its states holders. When we refer to an educational organization's states holders, we talk about its managers, local and central authorities and nevertheless student organizations and other sponsors, as well. All of them should contribute into making good publicity for the new policies and initiatives. Also, if an initiative should fail, all of them should assume accountability. Thus, communities should be extremely involved in the life of higher educational institution, supporting their cause whatever it is.

4.6. Legality – An academic initiative regarding sustainable development should have a legal basis. This legal basis should first and foremost be in accordance with the countries loss, the government public policies, and, nevertheless it should be in accordance with the educational organizations status and by-laws. If one of these legal conditions isn't mate, it will be rejected by the authorities or it will lose its academic credibility.

4.7. Accomplishments – The initiative regarding sustainable development should be successful in gathering the necessary resources and also help the conservation process. When we talk about the necessary resources we refer to: grants, scholarships, contracts, state founding, public interest, recognition, and support from regional, international leaders. (Deneș *et al*, 2011, p.8)

5. The implementation of sustainable education projects

There are important areas where implementing and the institutionalization of a sustainability project in a university can have an impact:

A. *Mission*
B. *Strategic plan*
C. *Budget*
D. *Orientation*
E. *Campus map and signage*
F. *Construction policies*
G. *Purchasing policies*
H. *Student life*
I. *The life of the residence*
J. *Experience of the first year of student*
K. *Curriculum review*
L. *Partnership with the community*
M. *Workforce development*

Before talking about implementing sustainable development initiative, it is mandatory to understand the role of higher education within the process of sustainable development in a society:

- the higher educational system has a limited role in educating students, by supporting them in their quest to gain knowledge, and by this they choose which type of information they provide to them, so that they live in the complex world of economic, social, and the environmental interactions. Thus, while being limited by the way that they cannot control how each individual will act accordingly, universities can choose their curriculum and the information provided, so that their students don't necessarily take advantage of the markets and society generally.
- Universities need to identify technical and social solutions in order to cope with the challenges presented by the development of sustainability. These solutions should be used as guidelines for future long-term projects.
- Universities should assume the position of catalysts when it comes to education, beyond their barrier of institutional pride, exchanging knowledge and ideas between themselves, but also with local communities, business communities, governments and other authorities.
- Universities should promote continuous improvement when it comes to the impact, their activity has upon the environment, the economy, and society.

Thus, the most important thing in the life of a higher education organization is being played but its curriculum, due to the fact that it can help shape the information students acquire, the way their student`s life is being organized, and also the way the universities objectives are being achieved. (Thomas et.al., 2012, p.12)

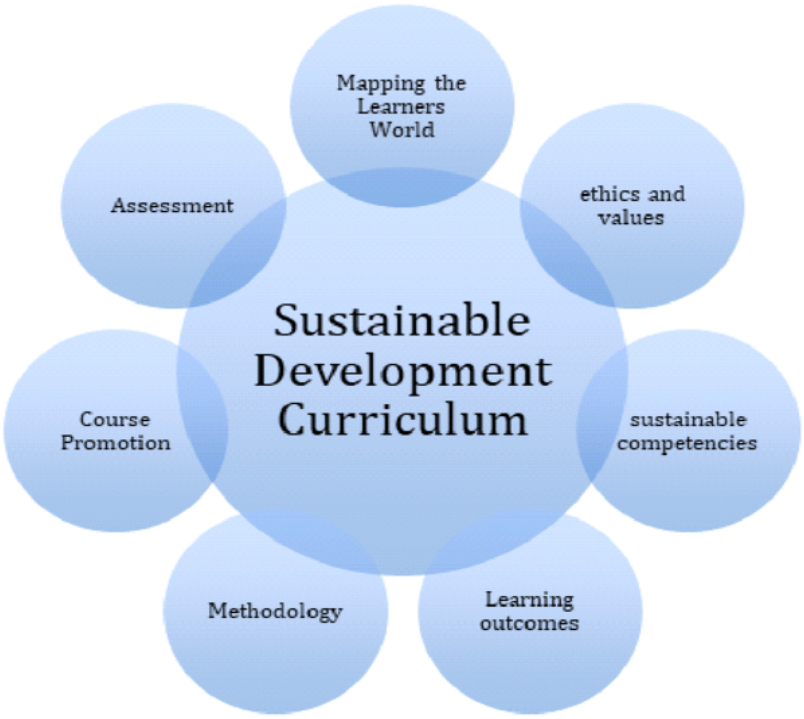
A well-designed curriculum can be developed over a clear vision of what the university wants to contribute to the sustainable development of a society. In this regard, a proper curriculum:

- should have clear purposes that reflect the national public policies in education, and the path where the government states its necessities regarding its label workforce need.
- should promote the development of all individuals (staff and students) from an intellectual, personal, social and physical point of view.
- should set high expectations for everyone involved, from staff to students and nevertheless states holders.
- should to identify new knowledge, skills, attitudes and personal attributes. In this regard, universities throw their curriculum should support research and development.
- should be supported by clear values, both ethical and practical ones.
- should help each student in making a huge progress based on experiences, both inside and outside the university;
- should provide a coherent and relevant set of learning experiences, both during and outside of lessons;
- should encourage team work;
- should encourage the use/ development of new technology;
- should meet all the legal requirements.

Universities should use external expertise of different teachers in order to enrich the learning process. They should also provide opportunities so that learners can enjoy the benefits of a different approach in learning, including through disciplines, learning topics, thematic approaches, study areas of their choice and problem identification. (Younghan, 2019, p.3)

An advanced curriculum should also take into consideration the following aspects (Parkin *et al*, 2004, p.9):

Figure no. 1. Components of a Sustainable Development Curriculum



Source: self-processing

A well-designed curriculum is constantly evaluated:

- in order to find out the impact of providing (delivering) knowledge and skills, not just the supply itself;
- by using a wide range of indicators, which can reflect all aspects related to its objectives;
- by students, parents and custodians, as well as by the community with which the institution interacts.

6. Findings. Adapting the Romanian educational system

The recent developments in the Romanian Educational system have left to marks over the way its sustainability can be developed in the future:

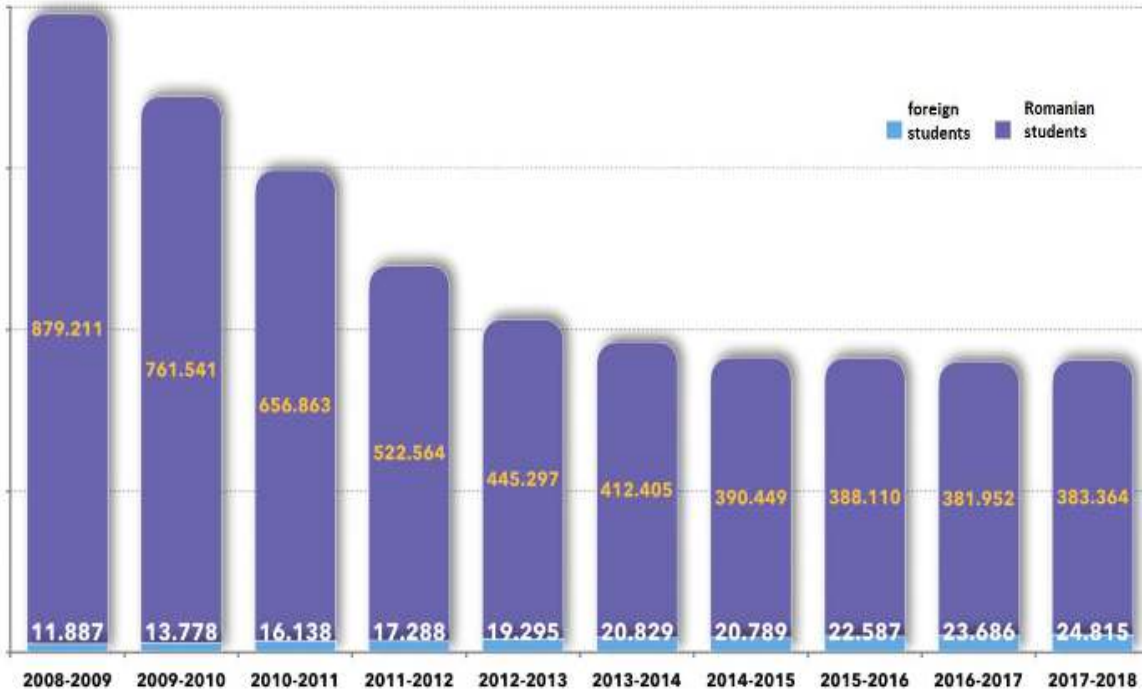
- first, since the 2009-2010 academic year (Figure 2), the number of students has decreased rapidly due to the fact that security measures have been implemented when the final examination of high-school students takes place, so that they prevent cheating.

- secondly many international IT companies have opened subsidiaries in the west part of the country but also in Bucharest as well.

- thirdly since 2007 most of the young Romanian workforce has been leaving the country towards western European countries.

These facts have played in a major role not only in reducing the number of students, but also in shaping the labor force that has stayed in the country. The recent COVID-19 pandemic crisis has shown a harsh truth regarding the Romanian health system, which has less medical staff than it should require. A solution to this fact might be that the number or foreign students in the country has doubled in the past 10 years, most of them being medical students. But if the medical health system in Romania might/can be saved by its foreign medical students, not the same thing can happen with other fields as well.

Figure no. 2. Total number of students in Romania



Source: self-processed data obtained from the National Ministry of Education (Romania)

Since the expansion of the IT sector, universities have seen their number of students being reduced even more due to the fact that IT companies offer free training for their employees. Thus, Romanian universities need not only to adapt their curriculum so that it can adapt to the Romanian market but also to take new steps in marketing themselves, so that they can increase their number of foreign students.

7. Conclusions

The Romanian higher educational system is transitioning to a faze where most of the private universities see their very own existence threatened while the public universities face the challenges of having to deal with less than half the number of students their where used to. While doing that, both private and public universities face the challenge of making sure that they can leave their mark over the evolution of mankind in a positive way. The Romanian educational system faces challenges regarding:
- developing and implementing sustainable developing initiatives that will ensure their own future;
- actions regarding developing and implementing sustainable developing initiatives that will help The European Union`s reach its own goals in this matter.

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Comparative Study Between Antioxidant Activity and Antibacterial Effect of Usnea barbata (L)F.H.Wigg Extracts and Volatile Oils Marked in Romania

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Abstract

Usnea barbata (L.)F.H.Wigg is a lichen used in traditional medicine about 2000 years. Responsible for it biological effects are the secondary metabolites. Essential oils are used in aromatherapy because of the antimicrobial activity of their compounds. The aim of this study is to establish if it is a correlation between the antioxidant activity and antibacterial effect of both types of natural products.. In this study were used two Usnea barbata extracts and five essential oils – aetheroleum (aeth.) - from the same producer: Thymi aeth., Melissae aeth., Menthae aeth., Lavandulae aeth. and Eucalypti aeth. The antioxidant activity was determined by spectrophotometric method. The obtained results showed that all the analyzed Usnea barbata extracts and essential oils have antioxidant potential, with various intensities. Correlation of its antioxidant activity with antibacterial effects, shows that between both mentioned actions there is a relationship of direct proportionality.

Key words: Usnea barbata (L.)F.H.Wigg extracts, essential oils, antioxidant activity, antibacterial effect
J.E.L. classification: I10

1. Introduction

In the last years, there has been a tendency to supplement the action of synthetic drugs with natural remedies, given the fact that synthetic drugs have, in addition to therapeutic benefits, multiple side effects (Newman and Cragg, 2016).

A problem of global medical interest is the emergence of resistance of pathogenic bacteria to common antibiotics (Aslam *et al.*, 2018) this problem required extensive research to discover new structures with antibacterial effect. To this end, complex teams of researchers study the mechanisms of antibiotic resistance, while pursuing new ways to obtain alternative natural remedies with antibacterial action (Ventola, 2015)

Another remarkable aspect is that many species of plants have antioxidant properties (Salehi *et al.*, 2018), especially due to the content of polyphenols; they play an important role, both in the normal growth and development of plants, and in optimizing the defense abilities against oxidative stress (Jamshidi-Kia *et al.*, 2020) Oxidative stress, induced by a number of environmental factors (pollution, ultraviolet radiation, various pathogenic microorganisms), food and drugs, is involved in the generation and evolution of more than 200 severe diseases (Li *et al.*, 2015) including: cardiovascular disease (Dubois-deruy *et al.*, 2020), periodontal disease (Wang, Andrukhov and Rausch-Fan, 2017) and various forms of cancer (Aggarwal *et al.*, 2019).

In this context, plants are a valuable source of biologically active natural compounds, and research is aimed at their use in antibacterial and antioxidant therapy (Alscher and Hess, 2017). Isolated constituents may be useful as alternative therapeutic agents or as core nuclei for new synthetic products with increased activity and / or reduced toxicity . Lichens are also fall into the category of plants that have remarkable antibacterial and antioxidant properties (Shrestha and St. Clair, 2013) .They are a unique group in the plant world and, at the same time, are the most widespread symbiotic organisms in nature, inhabiting more than 8% of the earth's surface (Fernández-Moriano, Gómez-Serranillos and Crespo, 2016).Also, numerous medicinal plants are studied for the essential oils content, with many biological actions (Tohidi, Rahimmalek and Trindade, 2019) (Vergis *et al.*, 2015)

The aim of this work is to analyze some Usnea barbata L. lichen extracts and some essential oils for its antioxidant activity and antibacterial effect, trying to make a correlation between this two actions.

2. Theoretical background

By the UHPLC-ESI-OT-MS-MS technique, in Usnea barbata (L.) F.H.Wigg. the following groups of secondary metabolites have been isolated (Salgado *et al.*, 2017):

depsides: thamnolic acid, haemathamnolic acid, gryophoric acid, lecanoric acid, diffractaic acid, barbatic acid, methyl-8-hydroxy-4-O-divaricatic acid, sekikaic acid, barbatolic acid, 8-hydroxybarbatic acid, chloroatranorin and atranorin;

depsidones: salazinic acid, siphulellic acid, α-acetylconstictic acid, galbanic acid, norstictic acid, stictic acid, cronorstictic acid, lobaric acid;

lipids: tetrahydroxydocosanoic acid tetrahydroxytricosanoic acid, , tetrahydroxyhexacosanoic acid, nonahydroxyoctacosanoic, tetrahydroxyyeicosanoic acid, heptahydroxytricosatrienoic acid, tetrahydroxydocosanoic acid;

diphenyl ethers: β-alectoronic acid;

dibenzofurans: usnic acid.

The therapeutical aplications of Usnea barbata (L.) F.H.Wigg. is based on the history of its use in traditional medicine, extensive phytochemical research and pharmacological studies (Prateeksha *et al.*, 2016).Essential oils may contain numerous different organic compounds with a lot of biological activities (Astani and Schnitzler, 2014)(Kubatka *et al.*, 2020)(Contrucci *et al.*, 2019): phenolics, alcohols, oxides, ethers, esters, aldehydes, amides, ketones, amines, terpenes (Tohidi, Rahimmalek and Trindade, 2019).

3. Research methodology

3.1. Antioxidant activity assay

The antioxidant capacity was determined using the Jasco V630 UV-Vis spectrophotometer, by the 2,2-diphenyl-1-picrylhydrazyl (DPPH) radical scavenging method, a standardized method for evaluating the ability of natural compounds to inactivate free radicals.

This method is performed by measuring the ability to neutralize DPPH radicals by the analyzed solutions; the purple color of the initial DPPH solution determinated at 515/517 nm is changed to light yellow as it appears in reduced form after the contact between DPPH solution and antioxidant compounds.

The absorption of 0.004% DPPH (Sigma-Aldrich, Mexico) in methanol was evaluated; this was brought into contact with the sample solutions and the absorbance was determined after 5 minutes; 2 Usnea barbata L. (UB) extracts solutions were made:

- S1 = UB extract from the dry lichen 200 mg / mL in 96% ethanol;
- S2 = UB extract 200 mg / mL in acetone;

For each UB extract: S1 and S2 (200mg / mL), the corresponding dilutions (100mg / mL) were made. DPPH free radical scavenger activity was calculated as follows:

% DPPH scavenger activity = 100 (Acontrol –Asample / Acontrol), where Acontrol and Asample are the absorbances determinated at 515 nm for the 0.004% DPPH solution in methanol and for the samples, 5 minutes after the addition of analyte solution (Popovici *et al.*, 2018).

Five essential oils with known antimicrobial properties (Reichling *et al.*, 2009), from the same producer were used: 1. Thyme essential oil (*Thymi aeth.*), 2. Lemon balm essential oil (*Melissae aeth.*), 3. Peppermint essential oil (*Menthae aeth.*), 4. Lavender essential oil (*Lavandulae aeth.*), 5. Eucalyptus essential oil (*Eucalypti aeth.*).

The antioxidant capacity of all the essential oils was determined by the same method; 2 mL of 0.5 mmol/L DPPH in methanol was mixed with 100 µL of different concentrations of each essential oil. After 20 min incubation, the absorbance (A) was measured at 517 nm with Jasco V630 UV-Vis spectrophotometer. The percentage of free radical-scavenging capacity was calculated with the same formula.

3.2. Antibacterial activity assay

Biological products taken from the oro-dental and pharyngeal cavity were studied: pharyngeal exudate, periodontal fluid, softened dentin from dental caries, nasal exudate and auricular secretion (the auricular canal and nasal fossae are close to the oral cavity). In auricular secretion was isolated Staphylococcus aureus, one of the most common bacterial species with high pathogenicity and recognized resistance to classical antibiotics.

Evaluation of antibacterial action was made by the *diffusimetric antibiogram method* (Hurezeanu *et al.*, 2013). The diffusimetric antibiogram method is based on the existence of a direct proportional relationship between the sensitivity of the tested bacteria and the size of the inhibition area of the bacterial colony developed around the antibiotic tablet.

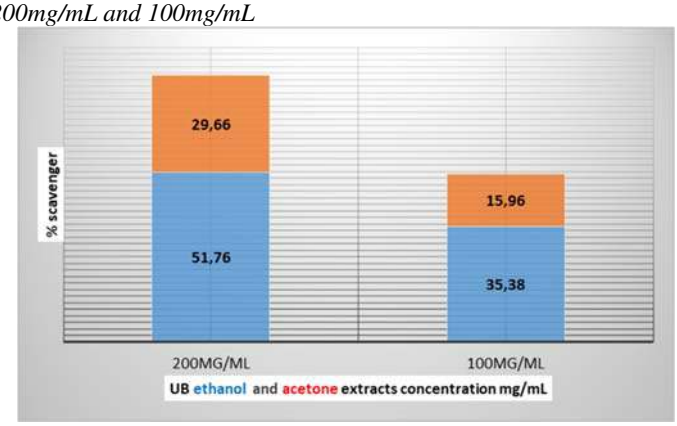
This standard method has been adapted to the specifics of the present study, replacing the antibiotic tablet with a filter paper disc with a diameter equal to its own, impregnated with the acetone and ethanol UB extracts, with 20% concentration value. Bacterial suspensions in 0,9% saline solution, with 0.5 Mac Farland turbidity, were uniformly seeded on the dry surfaces of Muller-Hinton culture media, and subsequently sterile filter paper discs were applied, saturated in the tested UB extracts. The amount of extract applied to each disc was 10 µL. Because that ethanol and acetone have their own antibacterial effects, after saturating the sterile filter paper discs with the corresponding extracts, the washers were left for 15 seconds to evaporate the solvent, before applying to the surface of the media with Staphylococcus aureus strain Subsequently, the Petri dishes were incubated for 24 hours at 37 o C, and at the end of this period the results were determinated.

4. Findings and discussions

4.1. Antioxidant activity assay

The obtained results show that UB extracts neutralized DPPH radicals with different degrees of scavenging activity (Figure 1). It was observed that the UB ethanol extract has the highest antioxidant activity.

Figure no. 1. Antioxidant activity of UB ethanol (marked with blue color) and acetone (marked with red color) extracts, 200mg/mL and 100mg/mL

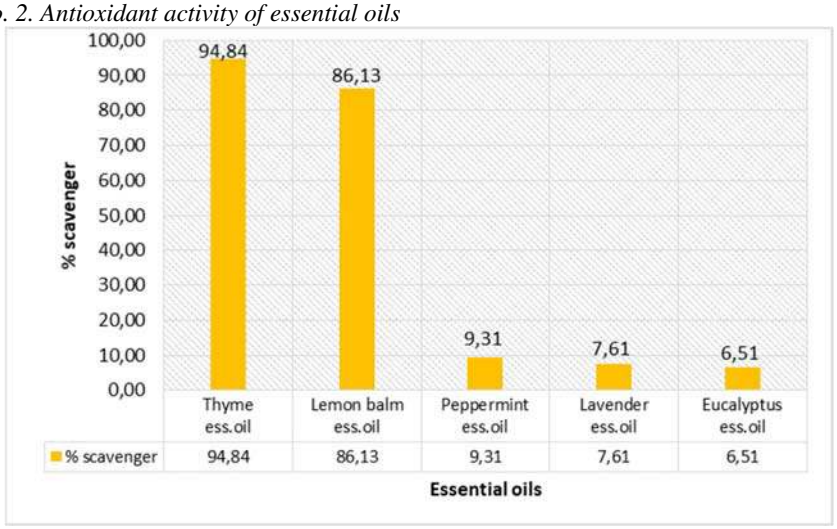


Source: authors' processing

The obtained results for the analysed essential oils (Figure 2) are the follows:

- *Thyme essential oil* and *lemon balm essential oil* have a DPPH free-radical scavenging activity values about 90%.
- *Pepermint essential oil, lavender essential oil* and *eucalyptus essential oil* have a DPPH free-radical scavenging activity values under 10%, acting through menthol, linalool, respectively eucalyptol.

Figure no. 2. Antioxidant activity of essential oils

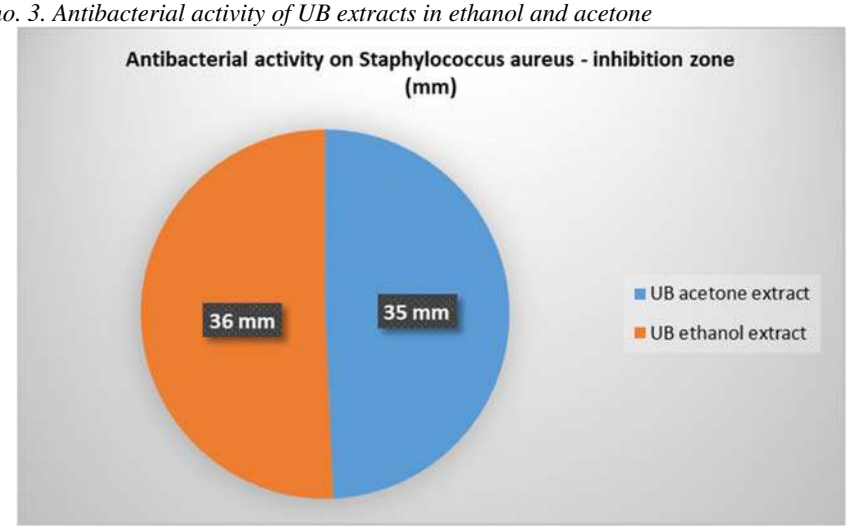


Source: authors' processing

4.2. Antibacterial activity assay

The results were quantified by measuring the diameter of the inhibition zones in millimeters, for each type of UB extract used: 36 mm for UB ethanol extract and 35 mm for UB acetone extract (Figure 3).

Figure no. 3. Antibacterial activity of UB extracts in ethanol and acetone



Source: authors' processing

The obtained results showed that the UB ethanol extract has a slightly higher antibacterial effect on Staphylococcus aureus, than UB acetone extract.

Correlating the antibacterial effect with the antioxidant potential for UB analyzed extracts, it can note that between both activities exist a direct proportionality.

For the five analyzed essential oils, there were correlated the antioxidant activities with antibacterial effects on Staphylococcus aureus found in the accessed scientific literature (Inouye, Takizawa and Yamaguchi, 2001). The antibacterial action of the 5 essential oils was quantified by minimal inhibitory dose (MID) of essential oil by gaseous contact, measured in mg/L air (Inouye, Takizawa and Yamaguchi, 2001); lower MID value means higher antibacterial action. The comparative data were presented in Table 1.

Table no. 1 Comparative analyzis between essential oils antioxidant activity (% scavenger) and antibacterial activity (MID mg/L air) on Staphylococcus aureus

Ess.oil	% scavenger	MID mg/L air
Thyme ess.oil	94,84	6,25
Lemon balm ess.oil	86,13	12,50
Peppermint ess.oil	9,31	25,00
Lavender ess.oil	7,61	50,00
Eucalyptus ess.oil	6,51	200,00

Source: adapted with the data from (Inouye, Takizawa and Yamaguchi, 2001)

Analyzing the data from Table 1 it can note that Thyme essential oil has the highest antioxidant activity and the best antibacterial effect (the smallest MID value). The antioxidant potential decrease in order: Thyme essential oil, Lemon balm essential oil, Peppermint essential oil, Lavender essential oil, and, on the last place, Eucalyptus essential oils (Figure 2), like the antibacterial action, quantified by MID value (Inouye, Takizawa and Yamaguchi, 2001).

5. Conclusions

This study showed the direct proportionality between the antioxidant activity and antibacterial effect of the UB extracts and essential oils.

Analysis of all the actions of this studied natural products correlated with results of this work, can suggest that these natural products can be used as complementary therapy for increase the immune defense, by the antioxidant activity and for the treatment of staphylococcal infections.

6. Acknowledgement

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Text Analysis Tools in ESP Teaching. Case Study

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Abstract

This study, structured into two main sections (a theoretical part and a practical one) deals with the important role played by text analysis tools in ESP courses and seminars, when choosing appropriate teaching materials. The first section of the paper tackles theoretical concepts related to lexical cohesion, reiteration and collocations, and the roles played by vocabulary within discourse. The practical section analyses the results issued by two text analysis tools, i.e. Voyant Tools and SEO Scout, which processed an authentic corpus from the economic field, showing, among others, its lexical density, lexical diversity and collocates. These results provide vital information about the complexity of the analyzed corpus and about its appropriate use in ESP classes.

Key words: text analysis tools, ESP, teaching, economic language, lexical cohesion
J.E.L. classification: Z13

1. Introduction

In ESP teaching and learning, the specialized vocabulary plays a vital part as far as the efficient acquisition of the reading, writing, listening and speaking skills is concerned (see Nadrag, 2016, pp. 36-37). Having in view that ESP texts are usually aimed at specific audiences and that they are also focused on the achievement of particular purposes, by using text analysis tools, one can better understand natural language processing (with a focus on specialized fields). Moreover, if teachers employ these tools, appropriate authentic discourse samples can be identified and used more efficiently in ESP teaching. Thus, text analysis (usually performed by various specialized software) can support teachers to improve the (ESP) teaching and learning processes, especially in terms of syllabus creation, choice of appropriate classroom materials and teaching methods, techniques and activities.

Scholars such as Halliday and Hassan (1976), Halliday (1985; 1989), Cook (1989), McCarthy (1991), McCarthy and Carter (1994), De Celce-Murcia and Olshtain (2000) tackled in their research the contribution brought by text/ discourse analysis to language teaching, which marked a shift from Saussure's traditional approach focusing on "langue" to the one that deals with actual language products and meaning creation, professing that language learning cannot take place out of context. In this regard, text analysis tools deconstruct meaning creation in order to show how language functions in a certain communicative environment. Learners acquire language skills in order to be able to communicate in various contexts (Nadrag, 2019, pp. 322-324). Thus, ESP teaching and learning processes should also focus on how a text makes sense, on how it holds together; consequently, the main purpose of grammar and vocabulary teaching is to help learners understand the contribution of these skills to the cohesion and coherence of a text and to the construction of meaning.

In order to better understand the semantic and pragmatic functions of a text, its lexical and grammatical features should be analyzed. Additionally, this knowledge should be applied to the ESP teaching and learning process (especially in terms of curriculum design, lesson materials and assessment), in order to enhance the learners' language skills (with focus on their field of specialization). Thus, the results provided by text analysis tools can contribute to language awareness and improve the quality and relevance of ESP classes.

2. Theoretical background: roles played by vocabulary within discourse and lexical cohesion

Across time, the linguists' opinions on the roles played by syntax and vocabulary in language learning varied largely, ranging from the focus on syntax professed in formal linguistics (which viewed languages as governed by rules that native speakers apply in creative and original ways) (see Chomsky, 1965) to the focus on vocabulary, supported by those scholars who argued that both everyday language and the professional one are quite predictable, formulaic and dominated by routine (see Hoey, 1983; Nattinger and DeCarrico, 1992). Since word meanings heavily depend on context (Celce-Murcia, 2000), it can be deduced that knowledge of a certain word implies the skills needed in order to properly use it in a syntactic, semantic and pragmatic way. In this regard, McCarthy (1984 p. 14) tackles several approaches to vocabulary teaching based on the functions fulfilled by the order of lexical items, showing the role played by the lexis:

"The belief that vocabulary skill is clearly more than understanding the componential features of words and recognizing their typical collocations, more than the ability to define a word and slot it into a sentence, leads me to propose that the key to a new approach in vocabulary teaching lies in an examination of syntagmatic and paradigmatic relations of collocation and set between lexical items:

above sentence level

across conversational turn-boundaries

and within the broad framework of discourse organization". (McCarthy 1984, pp.14)

Therefore, from McCarthy's perspective (1991; 1994), the relations formed at the level of collocations and sets of lexical items are constantly influenced by a dynamic reclassification process. The role played by lexis in written discourses, especially as far as the creation of cohesive textual relations is concerned, has also been revealed through exercises demanding (re)ordering the sentences and paragraphs.

The research conducted on lexical cohesion has also emphasized the importance of teaching lexis in discourse. In this regard, as far as vocabulary teaching is concerned, Crombie (2010) professes that more emphasis should be placed on conjunctions and learners should also be provided with opportunities to discern the roles that lexical items play when creating of semantic relationships.

It is noteworthy that speakers are not constantly required to creatively negotiate and renegotiate at interpersonal level when using vocabulary; the acquisition of fixed expressions can also contribute to the maintenance of discourse relationships (see Nattinger and DeCarrico, 1992). Thus, in order to develop lexical discourse skills, fixed expressions should also be taken into consideration as they create discourse relationships. Moreover, by providing a relatively stereotyped and stable response to an event considered as repetitive and formulaic, they also serve communicative purposes. Since they are predictable and usually contextually "fixed", these so-called "prefabricated discourse-sensitive units" reduce the interlocutors' effort of creating new lexical meaning, playing thus an essential role in discourse construction (see Carter, 2002, p. 223).

As far as lexical cohesion is concerned, some research performed by linguists (Pomerantz, 1984; Pearson, 1986) showed that conversational functions involving agreement/disagreement patterns can be fulfilled by synonyms, hyponyms and antonyms. For instance, Pearson (1986) emphasized that agreement or disagreement is not typically expressed by phrases such as "I agree" or "I disagree" but rather by using certain lexical relations between turns.

According to McCarthy (1991, p. 65), "related vocabulary items occur across clause and sentence boundaries in written texts", which represents a major feature of a coherent and meaningful discourse. The above-mentioned scholar quotes Halliday and Hassan (1976), who studied vocabulary patterns, described lexical cohesion, analyzed various types of lexical relationships that occur within a discourse, and reached the conclusion that "the relations between vocabulary items in texts (…) are of two main kinds: reiteration ad collocation" (McCarthy, 1991, p. 65).

Regarding reiteration, in English "it is necessary to vary repetitions and use different synonyms or appropriately related words in order to achieve good style" having in view that "all languages have a stock of general words" that are "highly frequent" and "tend to occur more often in informal spoken discourse" in order to make cohesion (De Celce-Murcia and Olshtain, 2000, p. 83).

Furthermore, these two scholars also explain that in any type of discourse, interacting lexical chains (with words whose meanings range from general to specific) are used, which create "cross-clausal lexical relationships" (p. 84) and enhance text cohesiveness and coherence. Thus, these scholars conclude that the analysis of lexical chains (in connection to semantic relationships) increases the awareness of the role played by lexicons in discourse cohesiveness and coherence.

In their turn, collocations are defined by De Celce-Murcia and Olshtain (2000, p. 83) as words that combine at the sentence level forming semantic and structural connections that become routines or chunks accessed for comprehension and production. They are also essential in discourse analysis, as they "reflect both local word-combining tendencies" typical of any language, and "more general content schemata or information structures" shared by all users of each language (De Celce-Murcia and Olshtain, 2000, p. 83). Carter (2002, p. 81) describes collocations as "recognizable lexico-semantic word-meaning relation"; in addition, he adds that "it is extremely difficult to define in any systematic way the nature of such collocational relations because (…) some patterns are distinctly semantico-syntactic and others are more generally probabilistic".

McCarthy (1991) suggests that it is extremely useful to train language learners in associating synonyms and antonyms (by means of simple cue and response drills, for instance). Awareness of the communicative value of lexical relations – which can begin at an early language learning stage, as soon as the necessary vocabulary is acquired – can enhance language learning. Furthermore, within a discourse, in order to achieve coherence, lexical items should be selected based on the shared knowledge about the topic of the respective discourse, its modality and genre, its register and audience.

3. Research methodology

During ESP courses and seminars dedicated to the students majoring in economic sciences, the teacher should create opportunities for students to acquire effective English written and oral communication skills and to understand specialized documents, from this professional field (i.e. economic sciences). Therefore, students must develop their understanding of the language specific to the field of economics, in order to use English effectively in their future profession. The teacher should be able to prioritize what to teach and, for this purpose, we consider useful the analysis of some documents in the economic field; this text analysis (performed in our study by specialized software) will highlight the type of language used, lexical density, lexical diversity, collocations, etc.

For the purpose of this study, we have chosen to analyze an authentic text, i.e. an EU Directive that should be taken into account by companies when drafting some of their most important reports (such as consolidated financial statements, various types of reports, annual financial statements, etc.) – "Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC (Text with EEA relevance)". The text analysis was performed by two specialized software, i.e. Voyant Tools ("a web-based reading and analysis environment for digital texts", see https://voyant-tools.org/) and SEO Scout (https://seoscout.com/tools/keyword-analyzer).

4. Findings

The analysis conducted by the Voyant tools specialized software showed that the chosen text consists of 31,526 total words and 2,289 unique word forms, with 43.6 average words per sentence and a vocabulary density of 0.073.

The most frequent words in the corpus are "article" (764), "financial" (394), "shall" (295), "undertaking/s" (568), "statements" (247), "member" (230) and "point" (201). A hierarchy of the words that occur most frequently in the corpus (top 20) was issued by the specialized software as follows:

Table no. 1. "Most frequent words in the corpus"

Term	Count
Article	764
Financial	394
Shall	295
Undertakings	290
Undertaking	278
Statements	247
Member	230
Point	201
consolidated	198
directive	171
States	163
European	108
Assets	106
Balance	106
Sheet	103
Value	101
Report	100
Information	99
Accordance	94
profit	91

Source: Table processed by Voyant Tools (see https://voyant-tools.org/)

The table above shows that 16 words out of 20 are nouns; three are adjectives (i.e. "financial", "consolidated" and "European") and one auxiliary verb ("shall"). This reveals that nouns contribute heavily to text cohesion. Moreover, most of these nouns denote economic concepts: "undertaking", "statements", "assets", "balance", "sheet", "value", "report", "profit".

The specialized software also generated a word cluster revealing the most frequent word combinations. It is worth mentioning that these are typical of the economic and legal fields:

Figure no. 1. Word cluster



Source: Figure processed by Voyant Tools (see https://voyant-tools.org/)

In addition, the Voyant Tools software issued a table with Corpus Collocates, showing the terms that occur "more frequently in proximity to keywords across the entire corpus" (see https://voyant-tools.org/).

Table no. 2. "Corpus Collocates"

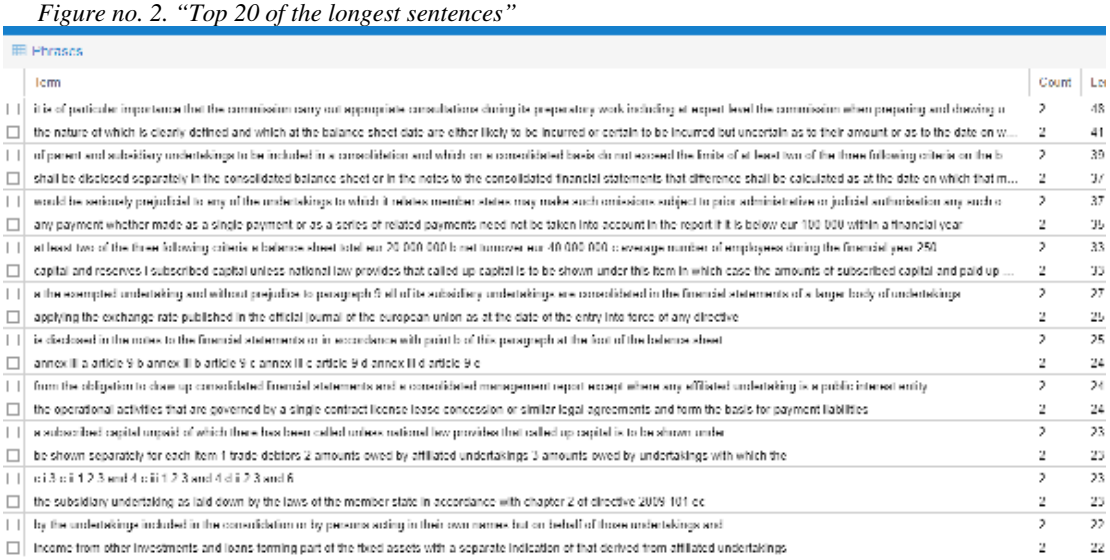
Term	Collocate	Count (context)
Financial	Statements	245
Member	States	163
Consolidated	Financial	122
financial	Year	58
Member	State	58
consolidated	Management	28
Financial	Instruments	21
Undertakings	Included	19
Statements	Shall	19
Financial	position	17
shall	Apply	17
Consolidated	balance	13
Undertaking	Concerned	12
Undertakings	Shall	10
Undertaking	Shall	10
Undertaking	governed	10
directive	directive	10

Source: Table processed by Voyant Tools (see https://voyant-tools.org/)

It is noteworthy that all the collocates in the above table belong to the economic and legal field, which reveals that the two areas are tightly interconnected in the analyzed corpus. Moreover, this also indicates that the text is highly specialized and it can be fully understood by the professionals activating in these two fields. Therefore, this text is not recommended to the students enrolled in the first year of study. However, some excerpts from this document could be used in the ESP courses or seminars designed for the students enrolled in the second or third year of study.

The complexity of the analyzed corpus is also highlighted by the following figure (generated by the Voyant tools software), which indicates that the longest sentence has 48 words (there are two such sentences). The figure shows a top of the longest sentences, which range from 22 to 48 words.

Figure no. 2. "Top 20 of the longest sentences"



Source: Figure processed by Voyant Tools (https://voyant-tools.org/)

In order to measure the lexical density and the lexical diversity of the corpus, the specialized software SEO Scout was also used, and it highlighted the following data in terms of content analysis:

Table no. 3. Content Analysis

Character Length	196206
Letters	153324
Sentences	4766
Syllables	52133
Average Words/Sentence	6.6
Average Syllables/Word	1.8
Lexical Density	56%
Lexical Diversity	9%

Source: Table processed by SEO Scout (https://seoscout.com/tools/keyword-analyzer)

It should be noted that lexical diversity deals with the variety of lexical words that convey meaning (i.e. nouns, adjectives, verbs and adverbs) within a text and it is one of the elements that can indicate text complexity and readability. Furthermore, lexical words should not be confused with grammatical items (such as conjunctions, pronouns and articles), which (among many others) aim at highlighting various relationships (also see https://textinspector.com/help/lexical-diversity/). Duran et al. (2004, p. 220-242) associate lexical diversity with other concepts, such as "flexibility", "vocabulary richness", "verbal creativity", "lexical range and balance", which "indicate that it has to do with how vocabulary is deployed as well as how large the vocabulary might be". The lexical diversity of the text is quite low, i.e. 9% (which is often encountered in specialized texts).

In its turn, lexical density, which is "the number of lexical items as proportion of the number of running word" (Halliday, 1985: 64), deals with the structure and complexity of communication, estimating the linguistic complexity of a text and influencing its readability, memorability and retention. Furthermore, scholars explain that written English texts usually have lexical densities above 40% (Castello, 2008, pp. 49–51), with the non-fiction ones ranging between 40% and 65% (Stubbs, 1986, pp. 27–42). The lexical density of the corpus is quite high, i.e. 56%, typical of expository writing (informative or technical texts). Therefore, the analyzed text conveys a quite large amount of information, which hinders its retention and enhances its complexity.

5. Conclusions

The analysis of the results issued by the two specialized software, i.e. Voyant Tools and SEO Scout, was extremely useful, as it revealed vital pieces of information regarding the appropriate use of the analyzed corpus in ESP seminars and courses. Students should be exposed to as many authentic texts as possible, from their field of specialization, in order to enhance their language skills, with a focus on the respective professional field. However, ESP teachers should take into account elements such as lexical density, lexical diversity and lexical cohesion when choosing their course or seminar materials, in order to make appropriate decisions, as these materials should be selected in accordance with the students' level of knowledge in the specialized field and with their language level.

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An Analysis of Written Texts in the Economic Field. Case Study

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Abstract

This article focuses on the analysis of written texts by text analysis tools as a useful instrument to ESP teachers in the design of their courses and seminars. The first past of this study presents several theoretical aspects related to text analysis, such as the definition of texts and outline of their main characteristics, the roles played by lexical density and cohesiveness in understanding the meanings of texts. The second part represents the practical section and presents the results of three text analysis tools obtained after processing a specialized corpus from the field of economic sciences. These results (in terms of lexical density, readability scores, keywords, most frequently used words) revealed important pieces of information that could assist teachers in developing their students' reading and writing skills and in choosing their teaching materials.

Key words: text analysis tools, text, lexical density, readability, ESP
J.E.L. classification: Z13

1. Introduction

In their analysis of Halliday and Hasan's work on cohesion and discourse analysis (which is underlain by the understanding of text structuring mechanisms), Afzaal et al. (2019, p. 79) see language "as a system of meaning accompanied by forms through which the meanings can be expressed". Texture, which underlies the unity and semantic interdependence of texts, establishes relationships between sentences, and provides meaningfulness, coherence (i.e. the contextual meaning at paragraph level) and cohesion (i.e. the text's "semantic ties") (see Eggins, 1994, p. 85). Since "teaching is a challenging endeavor" (Nadrag, 2019, p. 322), understanding how cohesion operates within texts in order to establish semantic connections could be beneficial to the students attending ESP courses and seminars in order to decode meaning.

Furthermore, the analysis of written texts equips teachers with the systematic knowledge necessary in order to describe texts, enabling them to raise their students' awareness of core characteristics, such as cohesion and coherence. In addition, the understanding of these concepts enhances the students' writing skills and makes them aware of the main traits that should characterize any well-written text.

2. Theoretical background: written text analysis

It is well-known that the concept of "text" has enriched the system of linguistic levels and has eased the understanding and explanation of certain textual elements, like cohesion and coherence, and their connection with text typology issues. It has also contributed to the clarification of several issues from other related fields, such as translation theory and practice, foreign language teaching, etc. Since the notion of "text" refers to a multidimensional unit (Janaszkiewicz and Różewski, 2019), it cannot be bound to a mere unifying definition; moreover, the elements and the criteria employed in order to define texts differ from one linguist to another, which complicates the situation, expanding the list of available definitions.

In general, linguists agree that this notion makes reference to a stretch of language of some considerable extent that is complete in itself: an invitation letter, a report, a scientific or a news article, etc. Nevertheless, there are also other language units that are perceived as texts as they

fulfill the prerequisite of forming a meaningful whole in their right even if they are made of only one sentence or even of a single word. Such instances are public notices like "NO PARKING" or "NO SMOKING". Therefore, the meaningfulness of texts is not dependent upon their linguistic dimensions, but on their location in certain contexts.

Halliday and Hasan (1976, pp. 1-2) define the "text" in their work Cohesion in English as follows:

"Text is used in linguistics to refer to any passage, spoken or written, of whatever length, that does form a unified whole (…). A text is a unit of language in use. It is not a grammatical unit, like a clause or a sentence; and it is not defined by its size. A text is sometimes envisaged to be some kind of super-sentence, a grammatical unit that is larger than a sentence but is related to a sentence in the same way that a sentence is related to a clause, a clause to a group and so on […]. A text is best regarded as a SEMANTIC unit; a unit not of form but of meaning".

In another work, the two scholars also tackle the text as: "language that is functional (…) Language that is doing some job in some context, as opposed to isolated words or sentences". They also explain that "any instance of living language that is playing some part in a context of situation, we shall call it a text. It may be either spoken or written, or indeed in any other medium of expression that we like to think of" (Halliday and Hasan, 1985, p. 10).

Moreover, Halliday also states that "as a thing in itself, a text is essentially a semantic unit (…). It is not something that can be defined as being just another kind of sentence, only bigger" (Halliday, 1985: 10) and, as such, texts should be approached from a semantic point of view; the semantic significance of a text can be better understood by analysing, among others, lexical and syntactic patterns.

Halliday and Hasan (1985, p. 5) explain that "there is a text and there is other text that accompanies it: text that is 'with', namely the con-text. This notion of what is 'with the text', however, goes beyond what is said and written: it includes other non-verbal signs-on-the total environment in which a text unfolds". These two scholars place emphasis on the part played by language in social interaction, whereby meanings are exchanged; they also tackle the role of situational contexts when approaching texts. Thus, from their perspective, texts are in fact stretches of interconnected sentences whose meanings heavily depend on their contexts.

In their turn, De Beaugrande and Dressler (1981, p. 63) consider that the text is "A naturally occurring manifestation of language, i.e., as a communicative language event in a context. The SURFACE TEXT is the set of expressions actually used; these expressions make some knowledge EXPLICIT, while other knowledge remains IMPLICIT, though still applied during process". From their perspective, there are two text-centered elements that designate operations aimed at text materials: coherence and cohesion. The former deals with "the ways in which the components of the textual world, i.e. the concepts and relations which underlie the surface text are mutually accessible and relevant", while the latter "concerns the ways in which the components of the surface text (the actual words we hear or see) are mutually connected within a sequence" (De Beaugrande and Dressler, 1981, pp. 3-7).

Texts are also characterized by user-centered standards or constitutive principles (Searle, 1965), which outline and establish textual communication and communication rules: informativity; intentionality, acceptability, intertextuality, situationality (De Beaugrande and Dressler, 1981, p. 11). These two scholars also explain that textual communication is controlled by three main regulative principles, i.e. efficiency (its usefulness to the participants with minimum effort); effectiveness (making strong impressions; good potential for achieving certain aims); and appropriateness (the setting should be in accordance with the above-mentioned standards).

Written language has stirred up not only the linguists' interest but also that of language teachers and literary scholars, as written texts are distinct from one another in terms of genre and function, but also as far as their structure and form are concerned; in addition, knowledge of writing organization and variety affects the readers' understanding, memory of conveyed messages and perception speed. Written discourse analysts have also focused on the relationships between neighboring sentences and especially on the elements highlighting that texts are more than the mere sum of their components. By performing written language analysis, certain characteristics of communicative products began to be depicted in adequate ways (McCarthy, 1991, p. 37).

Lexical density, defined by Halliday (1985, p. 67) as "the number of lexical items as a ratio of the number of clauses" focuses mainly of the role played by lexical items (i.e. content words) within a text. Following his analysis, the scholar has reached the conclusion that written texts are endowed with higher lexical density levels; this is due to the fact that the number of non-lexical items and the one of clauses decrease; in addition, he notices that the sentence structure of written texts is less complex (compared to spoken texts, which are characterized by lower lexical density but also by higher levels of grammatical complexity): "The more natural, un-self-monitored the discourse, the more intricate the grammatical patterns that can be woven. Usually, this kind of discourse will be spoken, because writing is in essence a more conscious process than speaking". He also adds that "spoken and written discourse are the outward forms that are typically associated with the critical variable, which is that of consciousness" (Halliday 1987, p. 66).

Thus, from the scholar's viewpoint, spoken language is usually more intricate in terms of grammar and its clauses have fewer lexical items, while written language abounds in lexical items, thus favoring increased lexical density and being less complex in terms of grammar.

Cohesive markers are essential when it comes to text interpretation as they create links across sentence boundaries, pairing and chaining related items. According to McCarthy (1991), reading is a complex process as readers must interpret connections and make sense of them. Furthermore, based on their understanding of the world, they must build the world of the text in an active manner; they have to make assumptions and continuously evaluate their various interpretations in the connection to the situation and aims of the respective text.

When processing texts, readers also have to recognize textual patterns, coined by McCarthy (1991) as textual segments in order to avoid confusion with grammatical elements and syntactic relations within clauses and sentences. These textual segments are deeply rooted in the readers' cultural knowledge and are exhibited in regularly occurring functional relationships between bits of text (i.e. phrases, clauses, sentences, groups of sentences or even whole paragraphs); it is noteworthy that segments can be isolated by employing labels encompassing a finite set of functional relationships that can occur between any two bits of text, such as phenomenon-example, cause-consequence, instrument-achievement, etc. (see Hoey 1983; McKlee, 2001).

In McCarthy's perspective, when interpreting the relations between textual segments, readers perform cognitive acts, as they might ask text-related questions as it unfolds, they might engage in a dialogue with the author, and the processing of textual segments could be perceived as similar to an exchange in spoken discourse. McCarthy (1991) places textual relationships under the heading of logical sequence relations (i.e. the relationships created by textual segments, such as the subordination of one item to another by various grammatical means or the presence of conjunctions or general vocabulary items can create cause-consequence relationships).

McCarthy (1991) has even gone further in his clause-relational approach and analyzed larger patterns or sequences of relations that are culturally rooted and usually occur in texts (for instance, problem-solution patterns) being often emphasized by grammatical and lexical mechanisms such as subordination and parallelism. Both readers and writers should be aware of these mechanisms and employ them when processing textual relationships that are not readily evident.

3. Research methodology

Having in view that knowledge of writing organization affects, among others, the readers' understanding and perception speed, we considered that the analysis of written texts may represent a useful tool that would enable ESP teachers to enhance the learners' writing and reading skills, by raising their awareness of the main text characteristics (such as coherence and cohesion) and of the core standards that should be met by any well-written text. This is extremely useful since specialized text are even more difficult to understand, having in view "the interfingering between different types of specialized vocabularies and the common vocabulary in use" (Nadrag, 2016, p. 37) that characterize them.

Thus, this section of the paper is aimed at analyzing several written text features in the field of economic sciences, with a focus on lexical density, keywords, most frequently used words and readability, by means of specialized text analysis tools, i.e. "SEO Scout" (https://seoscout.com/tools/keyword-analyzer), "Text Analyzer" (https://www.online-

utility.org/text/analyzer.jsp) and "Analyze My Writing" (https://www.analyzemywriting.com/). For the purpose of our research, an authentic text was selected, i.e. a EU Directive that should be consulted by the employees of large companies in order to increase awareness on various issues related to corporate social responsibility – "DIRECTIVE 2014/95/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups".

4. Findings

First of all, a content analysis was performed by "SEO Scout". The results are shown in the table below:

Table no. 1. Content Analysis by SEO Scout

Word Count	4718
Character Length	30718
Letters	24972
Sentences	397
Syllables	8548
Average Words/Sentence	11.9
Average Syllables/Word	1.9
Lexical Density	54%
Lexical Diversity	21%

Source: Table processed by "SEO Scout" (https://seoscout.com/tools/keyword-analyzer)

According to Castello (2008, pp. 49–51), the texts written in the English language are normally characterized by lexical densities above 40%; additionally, the lexical density of non-fiction texts range between 40% and 65% (see Stubbs, 1986, pp. 27–42). It may be noticed that, according to the results issued by "SEO Scout", the lexical density of the selected corpus is quite high, i.e. 54%, which is typical of informative or technical texts. This fact highlights that the corpus is aimed at transmitting a quite large amount of information, which makes it more complex and difficult to retain.

The specialized text analysis tool assessed the readability of the corpus, and assisted us in determining its difficulty level in terms of understanding the message that it conveys. Word choice, sentence length and structure, average syllables per word are among the elements that can influence a text's readability score. When it comes to regulations, readability plays a significant role as it can influence the readers' understanding of and engagement with content.

Table no. 2. Readability by "SEO Scout"

Reading Ease	36.8%
Grade Level	11.1
Gunning Fog	14.4
Coleman Liau Index	15.4
Smog Index	10.7
Automated Reading Index	9.4

Source: Table processed by "SEO Scout" (https://seoscout.com/tools/keyword-analyzer)

Table no. 2 shows the readability scores of the analyzed corpus, processed by "SEO Scout". These scores indicate that the text is difficult to read and that it can be best understood by college sophomores or by college graduates. Therefore, this document can be used as a teaching material in the ESP courses or seminars with the students majoring in Economic Sciences, enrolled in the second or third year of study.

Table no. 3 below, processed by the text analysis tool, includes a top 10 of the keywords in the corpus.

Table no. 3. Keywords by "SEO Scout"

Keyword	Uses	Uses
Undertakings	50	1.1%
Information	47	1.0%
non-financial	45	1.0%
Article	37	0.8%
Directive	35	0.7%
Statement	34	0.7%
Paragraph	34	0.7%
Undertaking	33	0.7%
Report	32	0.7%
European	31	0.7%

Source: Table processed by "SEO Scout" (https://seoscout.com/tools/keyword-analyzer)

It is noteworthy that almost all keywords are nouns (except the adjectives "non-financial" and "European") usually encountered in the economic or legal field.

Another interesting processing was performed by "Text Analyzer", which dealt with the frequency of words.

Table no. 4. Frequencies of words by "Text Analyzer". Top 30

order	unfiltered word count	occurrences	Percentage
1.	the	367	7.8503
2.	of	206	4.4064
3.	and	174	3.7219
4.	to	167	3.5722
5.	in	127	2.7166
6.	a	69	1.4759
7.	financial	59	1.2620
8.	non	49	1.0481
9.	information	47	1.0053
10.	undertakings	46	0.9840
11.	by	45	0.9626
12.	for	44	0.9412
13.	1	42	0.8984
14.	on	41	0.8770
15.	article	40	0.8556
16.	shall	39	0.8342
17.	this	38	0.8128
18.	that	36	0.7701
19.	be	35	0.7487
20.	directive	35	0.7487
21.	as	34	0.7273
22.	is	34	0.7273
23.	statement	34	0.7273
24.	paragraph	34	0.7273
25.	or	33	0.7059
26.	with	33	0.7059
27.	should	32	0.6845

28.	report	32	0.6845
29.	european	31	0.6631
30.	member	*28*	*0.5989*

Source: Table processed by "Text Analyzer" (https://www.online-utility.org/text/analyzer.jsp)

Surprisingly, although most keywords are nouns, the most frequently used words in the text are grammatical items, such as definite and indefinite articles ("the", "a"), prepositions ("of", "to", "in", "by", "for", "on", "with"), conjunctions ("and", "or"), pronouns ("this", "that"), auxiliaries (for instance, "shall"). These words are usually used in order to highlight various relationships between lexical words and phrases. It should be noted that the most frequently used lexical words are adjectives ("financial", "European") and nouns ("information", "undertakings", "article", "directive", "statement", "paragraph", "report", "member"). The main role of these lexical items is to convey meaning within the text.

Although the most frequently used words in the text are grammatical items, the text analysis tool "Analyze My Writing" shows that lexical items hold a greater share in the corpus:

Table no. 5. Shares held by parts of speech in the corpus (by "Analyze My Writing")

Part of Speech	**Percentage**
Nouns	31.17%
Adjectives	9.87%
Verbs	10.06%
Adverbs	2.13%
Prepositions	14.33%
Pronouns	0.47%
Auxiliary Verbs	2.89%

Source: Table processed by "Analyze My Writing" (https://www.analyzemywriting.com/)

The statistics from the table above highlight that more than half of the parts of speech in the text are lexical items, showing increased lexical density, typical of written texts.

In its turn, lexical density, which is "the number of lexical items as proportion of the number of running word" (Halliday, 1985: 64), deals with the structure and complexity of communication, estimating the linguistic complexity of a text and influencing its readability, memorability and retention. Furthermore, scholars explain that written English texts usually have lexical densities above 40% (Castello, 2008, pp. 49–51), with the non-fiction ones ranging between 40% and 65% (Stubbs, 1986, pp. 27–42). The lexical density of the corpus is quite high, i.e. 56%, typical of expository writing (informative or technical texts). Therefore, the analyzed text conveys a quite large amount of information, which hinders its retention and enhances its complexity.

5. Conclusions

The analysis of written texts by text analysis tools can be extremely useful to ESP teachers when they select their teaching materials. These instruments can indicate critical pieces of information, in terms of text difficulty levels, such as lexical density, readability scores, keywords, most frequently used words.

Furthermore, the understanding of the meanings conveyed by written texts can be enhanced by knowledge of writing organization, which makes text analysis a useful instrument in teaching and developing the students' writing and reading skills. Thus, awareness of core features such as coherence and cohesion, and knowledge of the characteristics of well-written texts could underlie the development of good readers and writers of English texts.

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Exploring the Connection between Corruption and Corporate Governance

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Abstract

The article analyses the relation between the corporate governance requirements and the corruption phenomenon, explaining how by respecting or ignoring certain aspects of governance and disclosure, might have a fundamental significance in the fight for combating the corruption behaviours or encourage them. The research problem is finding the correlation between corruption and the quality of the corporate governance system. We proved that assuming the conjunction of the cultural dimensions power distance indicator, uncertainty avoidance and short-term orientation in the same society is a red flag for corruption thriving in the respective country is true.

Key words: corporate governance, anti-corruption policies, corruption, compliance, Hofstede
J.E.L. classification: D73, G34, M14

1. Introduction

The article analyses the relation between the corporate governance requirements and the corruption phenomenon, explaining how by respecting or ignoring certain aspects of governance and disclosure, might have a fundamental significance in the fight for combating the corruption behaviours or encourage them. Interaction between the corporate governance system and national culture is incredibly important in understanding the corruption at a society level.

We started by defining the conceptual terms related to this paper, like corporate governance, culture and cultural dimensions, organizational culture, corporate social responsibility, institutions, institutional theory. Following, we drew hypothesis and analysed diverse studies on the same theme, proofing, or refuting the hypothesis and elaborated the conclusions accordingly.

2. Theoretical background

Institutions are the resilient social structures characterized by established practices, regulative standards, cognitive and cultural behaviours, normative features, isomorphism, certain communications patterns, all leading the attitudes towards deliberate purposes.

Institutionalism or the institutional theory defines corruption in the public sector using government typical features, anti-corruption standards and independent anti-corruption institutions. According to W.R. Scott, the institutional theory refers to legislating the regulations and norms for the organizations to comply and be supported by authority. (Scott, 1998)

Corporate governance (CG) describes the manner the companies are ruled. We can define CG by all processes and structures that are applied by the board of directors for informing, coordinating, managing, monitoring the activities of an organization in achieving the settled objectives, or "a system by which companies are directed and controlled." (Cadbury, 1992)

Corporate governance concept refers to ethics, social responsibility, good practices activities in business and control activities. The interest in this field raised lately and there is a unanimous awareness over the CG and its benefits in the present times as crises, competition and corruption emphasized the weakness in corporate governance of companies and institutions.

Corporate social responsibility (CSR) is tremendously important for the economic environment. The way companies approach CSR depends on CG recommendations they choose to apply or not. Companies need to raise awareness over sustainability, decrease the negative consequences on the environment and raise the volume of positive activities. By adopting CSR techniques, organizations would increase their competitiveness, raising the business value, improve their credibility and their market value.

We can define corruption as the alteration of a person's integrity or the use of dishonest practices for one's own benefit, a phenomenon that is present in every country, disregarding the education level, economic situation, or political structure. Corruption takes various forms, from abuse of power, bribery, conflict of interest, nepotism, illicit gifts, unlawful embezzlement, taking unjustified advantages, incompatible trade, diversions, passive or active corruption of public persons, abuse of social goods, unlawful exonerations, fraud, etc. and can lead to organized crime and terrorism if monitoring and acting against fails. It mostly affects the poor and impedes the developing countries to remove poverty.

3. Research methodology

The research problem is finding the correlation between corruption and the quality of the corporate governance system. We made qualitative research, using primary data, as theoretical concepts and we also used secondary data, as theories about corruption and corporate governance. Our goal for this qualitative ethnography was to show a contextual actuality of expertise about the beliefs and behaviours of people in a society and how this affects the perception of corruption and the legitimacy of acting in the spirit of the law. We used more interpretive methodology which reflects our position as researchers with the expertise in the field and this is an important thing to point out as it might influence the results.

We used descriptive data, collecting it from the scientific databases where we found specialized papers and book chapters related to anti-corruption practices, corruption theories, the dimensions of culture, and the dimensions of corporate governance and speciality books of renowned authors from the field.

With this approach in mind, we drew the hypothesis for this research:

H1 Corruption phenomenon is enhanced in societies where joint cultural dimensions like high power distance, high uncertainty avoidance and short term oriented are more present.

H2 A high quality of corporate governance has a negative impact on the corruption level.

4. Findings

4.1. Organizational culture and cultural dimensions

Organizational culture consists of a series of strong factors, interdependent, like politic, economic, legal, technological, cultural that influence the strategy, the functions, and the management processes. Defining the culture starts from the human resource. The organizational resource refers to the human capital, is characterized by different social environments, ideas, beliefs, emotions acknowledged at the individual or social level and shared to others, enriched, or replaced helped by customs or rules that already exist within the organization. We might admit that organizational

culture represents the personality of a company, shared by all its members. Meanwhile, culture depicts the material manifestations, the work environment conditions for the members of the organization, the discrepancies occurred in different hierarchic levels, wages, etc. the specificity of organizational culture is given by the values, beliefs, symbols, habits, traditions, historical factors, etc. All the relations between the members of an organization, the board of directors, managers, shareholders, and stakeholders are influenced by the dimensions of the organizational culture and corporate governance (Caratașș M.A., 2020).

H1 Corruption phenomenon is enhanced in societies where joint cultural dimensions like high power distance, high uncertainty avoidance and that are short term oriented, are more present.

When implementing the organizational culture within an organization one cannot ignore the national culture and the compatibility between the two of them. Leaders of these organizations play a major role in promoting the organizational culture, which is the strongest force within a company. Culture is the context where all members of a society operate together and define the directions of an entity. It creates a common space for all team members and helps in a transparent way to eliminate uncertainty linked to explaining events or actions, offering a common language to everybody.

Geert Hofstede managed to define a pattern that characterizes cultures through five specific dimensions:

- masculinity/femininity,
- power distance,
- collectivism/individualism,
- uncertainty avoidance,
- short-term or long-term orientation and
- indulgence/ restraint, which we define further on.

The power distance index or the social steps and egalitarianism (relations with authority)

This dimension is specific to people from a certain culture relating to power at the place where they practice the job. In certain cultures, persons of authority keep very distant relations towards their employees' – high power distance and the inequalities between people are claimed, accepted, and reflected in the hierarchy of the organization; the less powerful people depend on more powerfully ones, the status, the privileges, and centralization are common. Some examples of countries with high power distance index are Malaysia, Mexico, Venezuela, China, Egypt.

In other societies, people of authority keep closer relations with their subordinates – low power distance, the inequalities between people are minimized people are interdependent, the hierarchy expresses inequality on the roles of members, decentralization is common, and privileges and status are displeased. The states characterized by low power distance are the Unites States, the United Kingdom, Israel, Northern countries, New Zeeland, Austria.

Avoiding uncertainty or accepting equivocal situations and risk vs. the tendency towards rearranging and consistency

This indicator shows us the level of reception of culture towards unstructured and dangerous situations. The cultures that enjoy a low level of avoiding the lack of certainty accept more relaxed the unpredicted and vagueness. The highest is the uncertainty avoidance index, the more those respective societies are inflexible and oriented towards complicated norms that might help them in avoiding risks, lack of security and the level of restlessness. Greece, Portugal, Belgium, Japan are countries with high uncertainty index and India, United Kingdom, Sweden, Denmark, Singapore are the ones with the lowest score.

The masculinity vs femininity score or affirmation and materialism vs valuing life, success in life

This indicator is related to the divisions of roles within a culture. According to this dimension, self-affirmation, material success, progress and assigning responsibilities are masculine qualities and the concern for other people, valuing life and collaboration are feminine qualities. Japan, Austria, Venezuela, Italy are all high masculine countries while Portugal, Northern countries, the Netherlands, and Costa Rica are feminine cultures.

Individualism and collectivism or I vs. us (relations with others)

This indicator shows the extent to members of society work only for their own advantage and their family or for wider social group advantage. In a collectivist society, loyalty is fundamental, above all the other rules. The relationship between employer and employees is perceived in terms of morality, the same as within a family. The employment decisions, the promotions are taken by considering the group relation, the relationships take precedence above risks.

Long term vs short term dimensions or patience appreciation

Long term orientation involves the adaptation of traditions in a modern context, big investments funds, the tendency of acquiring long-term results and the appreciation of virtues. Short term orientation identifies more with respect and tradition, retaliation of gifts, favours, and personal stability. This dimension was added last, and its aim was the attempt to describe the difference in reasoning between the Eastern and Western societies. China, Taiwan, Japan, Brazil, India are long-term-oriented countries while the Philippines, Ghana, Nigeria, Sierra Leone are short term-oriented cultures.

Indulgence versus restraint IVR - the happiness dimension

Minkov, the Bulgarian scholar, researched this last dimension added on Hofstede model, studied such elements like the shopping behaviour of customers, the social trust and freedom of speech to interpret the cultural reactions (Hofstede & Minkov, 2010). This cultural dimension is used to express the control of desires through the manner they were raised. Societies with a weaker control over desires are indulgent and tend to allow granted satisfaction of basic and natural human desires linked to the joy of life and pleasure while restrained societies have the belief that such satisfaction should be limited and normed by strict rules. There are three subdimensions at this level, such as happiness and pleasure in life, the importance of free time and friendship and control over life. An indulgent culture has a higher proportion of happy people, is characterized by a positive attitude, optimism, extravert people, greater importance given to leisure and having friends. A restrained culture, on the opposite, has a lower proportion of very happy occupants, people do not consider having friends and free time important, pessimism, cynicism, higher moral discipline, and a high percentage of deaths due to cardiovascular diseases.

Hofstede's studies smooth the understanding of cultural diversity causes among countries and their effects on business management. (Hofstede G., 2001)

Corruption influences socio-economic dimensions in such a way that in countries with high governance standards, compared with the opposite ones, the level of corruption is lower. In their recent research, Boateng highlighted the importance of understanding the interaction between corporate governance and the national culture and their effects on corruption levels (Boateng et al., 2020). Thus, in a country where the power distance dimension prevails, the adherence to governance good practices tends to not being followed and to be replaced with the culture of favouritism and nepotism, increasing the level of corruption, while the other Hofstede's cultural dimensions – individualism and indulgence have a negative effect over corruption.

The conjunction of the three cultural dimensions, which we named in our first hypothesis, is likely to describe corruption in a society. We hence proceeded to demonstrate this presumption by analysing the cultural dimensions and we used as a source of verification the last available data from Transparency International, as old as 2018. We selected for this table the less corrupted countries and the countries that scored higher on the three dimensions we focused on to prove the hypothesis. It is easy for one to note that the assumption was true.

CPI – refers to the "Corruption Perception Index" - the higher the index, the less corrupt is the country

PDI – "Power Distance Index" - the higher the index, the greater the power distance

UAI - "Uncertainty Avoidance Index" long-term oriented countries have a higher registered value

Table no. 1 Corruption Perception Index vs Cultural Dimensions Indices

Country	CPI	PDI	UAI	LTO
Nigeria	27	80	55	13
Colombia	36	67	64	13
Ghana	41	80	65	4
Morocco	43	70	68	14
Germany	80	35	65	83
Sweden	85	31	29	53
New Zealand	87	22	49	33
Denmark	88	18	23	35

Source: Authors' retrieval from Transparency International, Hofstede Insights

4.2. Corruption and anti-corruption performances

H2 A high quality of corporate governance policies has a negative impact on the corruption level.

We align to Griesshaber & Geys opinion about civic engagements and democratic societies, where democratic abilities and behaviours are cherished to negatively influence the development of corruption. Also, in a society with a pronounced civic commitment, the chance to encounter outlawed attitudes is much higher and has an impact on lessening corruption. (Griesshaber and Geys, 2012) The corruption perception depends on political awareness, as a factor of influence in trusting the political representatives and public administration. People with medium political interest and more educated, compared with people with no formal education have a higher tendency in trusting public administration, as Van de Walle and Migchelbrink found in their 173 European regions study over corruption and people trust in public administration (Van de Walle and Migchelbrink, 2020).

In the business environment, companies engage in corrupt activities aiming to obtain a competitive advantage by bribery. This kind of behaviour would lead to higher profit for the business and their shareholders but will have an obvious negative effect on society, income growth and economic sector entirely. Measures to diminish the corruption have been taken on the international level but on a national perspective, states can mitigate it by endorsing higher standards of integrity and transparency, adopting international practices, and including in their legislations' specific corruption offences. Another way of diminishing corruption is by harmonising the codes between jurisdictions and improving the business sector in terms of integrity by aligning to corporate governance reference standards. OECD elaborated the Convention on Combating Bribery related offences "related bribing of foreign public officials," issued sanctions, and made recommendations and guidelines for international business transactions to combat bribery (OECD, 2011). The G20 Policy Paper comes with recommendations over a culture of high integrity in the private and public sector, managing corruption risks by use of technology and sharpen integrity, accountability, and transparency in public acquisitions (B20 Policy Paper, 2020).

For developing countries, in their development work and integration process in the globalized economy, solid corporate governance becomes mandatory, not an alternative. Countries can either supply a CG system by importing it or self-defining the principles of CG (Peters et al. 2011). Importing a system without considering the local vectors, as legislation system, fiscal system, cultural dimensions, accounting practices, the proportion of experienced managers, the perception of corruption within a country might lead to failure. An optimal solution would be adapting the

governance standard to local conditions.

Anti-corruption practices might be successful in companies where compliance and ethics programs are implemented. These companies must plan internal controls, organize training on anti-corruption laws, have a functional system in the company encouraging the employees to report any doubtful behaviours and set up penalties for the wrongdoers. Good practice in the fight against corruption is the inclusion of anti-corruption requirements in the CSR policy of companies. This will lead to higher performance of the company, better reporting, and improvement of the business environment. The leading standards for economic, social and environmental reporting are ruled by the Global Reporting Initiative (GRI). GRI 205, appeared in 2016 with effect from 2018 and relates to the anti-corruption subject. The standards include a set of disclosures about "management approach, operations related to corruption risks, communication and training on corruption policies topic and procedures and confirmed incidents of corruption and their resolution" (GRI, 2016).

Huber draws attention over corruption and *perception of corruption* (Huber, 2001). Hofstede's study analysis is accurate on the perceived image of corruption and not the actual situation, because certain cultures, by their cultural dimensions' indices found in certain countries, give the perception of corruption and even by taking efficient measures and making great progress, the culture within a country will not change, that means the perception of corruption is difficult to be changed too. Only corporate governance, being a tool to implement in a business environment can be efficiently applied and lead to great results, that is why in combating corruption process, public and private institutions need to cooperate. Thus, the second hypothesis is correct.

5. Conclusions

Non-financial disclosure, if done responsibly, might have a great impact on the risk of corruption. Investors assess certain risks before making their investment decisions, like studying the company location and the market entrance conditions.

Good practice in the fight against corruption is including anti-corruption policies and requirements in companies CSR. This will lead to higher performance of the company to better reporting and improved business environment.

The quality of the corporate governance system might counteract the effects of corruption within a society. Application of the institutional theory for analysing the common effect of culture and corporate governance over corruption is meaningful, seeing that the corruption level cannot be seen beside the social environment where it occurs.

6. Acknowledgement

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The Economic and Social Impact of COVID-19 Pandemic: Evidence from Romania

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Abstract

The paper draws attention to the impact of the context of the COVID-19 pandemic on Romanian economy and social relations. Analyzing the secondary data, the paper presents the impact on the economy and how Romanians were affected by the imposed measures, what daily habits they have changed and how much trust they give to the authorities for managing crisis situations. The paper reflects that almost all Romanians have changed their daily habits and the measures of social distancing are felt by the population as a restriction of the freedoms of individuals. Moreover, the measures had immediate effects on the economy, the companies opted for work of home and the population had changed their buying habits. The paper contributes to a better understanding of the changes in the Romanian economy in the context of the COVID-19 pandemic.

Key words: COVID-19 pandemic, Romanian consumers, daily habits, social distancing
J.E.L. classification: M10, M19

1. Introduction

The disease caused by novel coronavirus SARS-CoV-2 made his debut in Wuhan, China in December 2019. Then, it took the pandemic proportions and severely affected the global public health and economy as well (World Health Organization, 2020; Nguyen D.V., Pham G.H., Nguyen D.N., 2020; Catana S.A., 2020). On the 11th of March 2020, after the official declaration as a pandemic, the governments took some actions in order to protect the population health and made recommendation or requirement for the use of health-protective behaviors on the part of its residents (Vally Z., 2020). 'Social distancing', in which individuals deliberately maintain a safe distance between themselves and others as well as the general practice of reducing the number of people one comes into contact with, is arguably the most widely recommended practice (Vally Z., 2020).

Romanian authorities have instituted a number of measures in an attempt to impede the spread of the disease. During the first week of March 2020 all schools and universities were physically closed and commenced online lessons. Also, in 16th of March, the president of the country decreed the state of emergency to adopt some restrictions of the freedoms of individuals. From the end of March, all shopping malls, leisure centers including gyms and places of worship were closed. Pharmacies and supermarkets remained open. Restaurants were limited to home delivery. Also, there were suspended flights from and to many countries. Violations of the stay-at home order carried exorbitant fines. All these measures were valid until May 15. Subsequently, the state of emergency was replaced by the state of alert and the measures were milder.

The goals of this paper are to present the impact of COVID-19 pandemic on Romanian economy, in general, and, particularly, to present how Romanians were affected by the imposed measures. The research is based on a quantitative method. The paper contains four other sections as follows: literature review, research methodology, results and discussions and conclusions.

2. Literature review

In order to limit the spread of the virus, the states promoted the increased use of hygiene-related behaviors in the public domain (Vally Z., 2020; Fung I.C.H., Cairncross S., 2006).

Countries have taken very strict restrictions such as vacation for schools, working from home, quarantine for regions with high number of cases, and most importantly, lockdown to slow down the COVID 19 outbreak. The lockdown days differ by countries (Atalan A., 2020).

Chakraborty and Maity (2020) have emphasized that the lockdown has both environmental and economic impact. The lockdown has created the ground for renewal of the environment, especially with the closure of factories and the reduction of both private and public transportation vehicles used. COVID-19 increased the air quality in many parts of the world with the lockdown imposed during the pandemic process (Chakraborty I., Maity P., 2020).

Loss of lives due to any pandemic causes definite irretrievable damage to the society. But apart from this, COVID-19 has severely demobilized the global economy. On the other hand, several dynamic forces fluctuating economies or demographical changes have brought new opportunities for organizations (Toma S.G., Grigore A.M., Marinescu P., 2014). In order to restrict further transmission of the disease in the community, many of the affected countries have decided to undergo complete lockdown (Chakraborty I., Maity P., 2020). Economy of many so called 'powerful countries' are now facing the threat of high inflation and increasing unemployment as a result of lack of productivity and excessive expenditure for the treatment and rehabilitation of the COVID-19 victims and their families (OECD, 2020). Also, the prospect of an economic crisis makes people change their buying habits as well (Cornescu V., Curteanu D., Marinescu P., Toma S.G., 2004; Mihai N.S., Marinescu P., Toma S.G., 2010).

According to World Trade Organization (WTO) and Organization for Economic Cooperation and Development (OECD) have indicated COVID-19 pandemic as the largest threat to global economy since the financial emergency of 2008–2009.

3. Research methodology

In order to reach the aims of the paper, the authors employed a quantitative method, based on a comprehensive secondary data analysis. The theoretical and practical information were obtained through desk research from various sources. The secondary data had been collected through the deployment of a widespread literature review, comprising books and journals published in a renowned publishing house and in electronic databases and from a study conducted by MKOR Consulting (2020).

Firstly, the authors studied the literature review on the economic and social impact of the COVID-19 pandemic. Secondly, the information was analyzed and synthetized, highlighting the aspects related to the impact of the COVID-19 pandemic on economy and social relations in Romania. Finally, the authors designed the paper and emphasized the conclusions following the analysis performed.

4. Findings

Infection with the new coronavirus, which broke out in China's Wuhan Province on end of 2019, spread rapidly in most countries of the world, becoming the first pandemic known to our generation. The new virus, extremely contagious and dangerous, has brought changes major in everyone's life, while foreshadowing economic changes still evolving (MKOR, 2020).

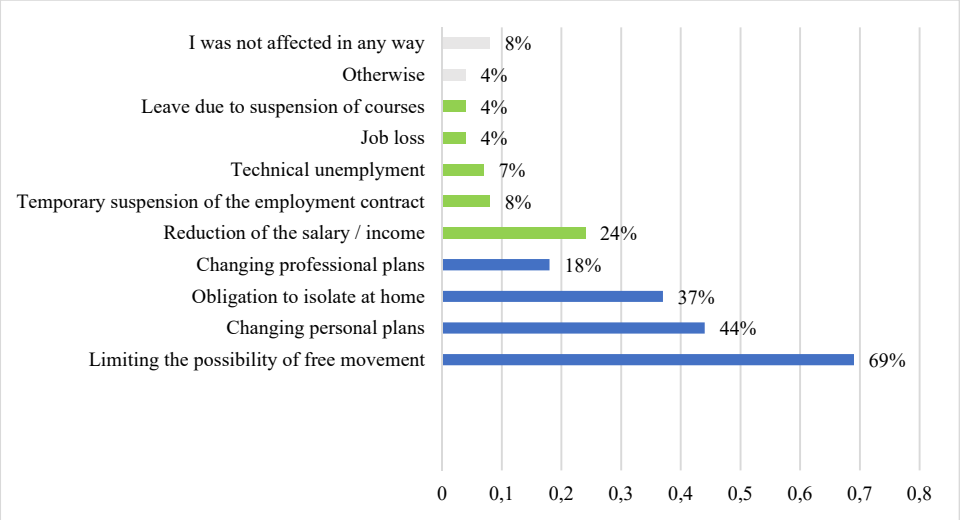
The first case of COVID-19 in Romania was registered in the country in February 26. From then until the end of March (March 31), the number of cases reached 2.245 infected people and 82 deaths. A series of exceptional measures followed, aimed at limiting the spread of the new coronavirus, measures with a strong impact on daily life, but also on business environment and the country's economy (MKOR, 2020).

The main objectives of the study conducted by MKOR Consulting are the following:

- The effects of COVID-19 pandemic on the Romanian people;
- Behaviors changes adopted by Romanians, in the context of COVID-19 pandemic;
- Working from home during the COVID-19 pandemic.

In the following graphic there are presented the effects of COVID-19 as they were perceived by Romanian consumers. In Figure no. 1 are presented with blue the aspects regarding the freedoms and with green the wellness aspects:

Figure no. 1. The effects of COVID-19 pandemic

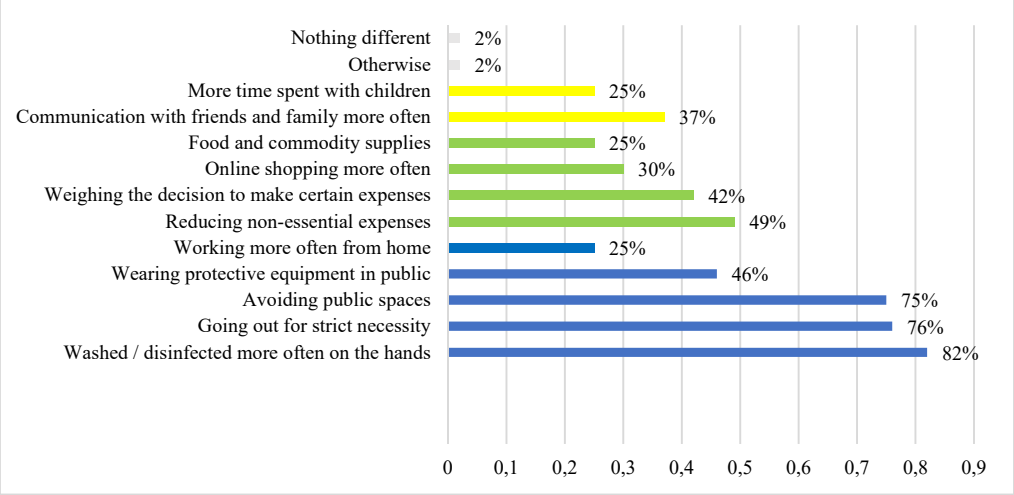


Source: MKOR CONSULTING

As can be seen, for most Romanians, the coronavirus pandemic means a restriction of some freedoms, through social distance. Over two thirds of Romanians had limited freedom of movement (69%), while about a quarter (24%) suffered a reduction in income. In addition, it should be mentioned that 19% of the active population entered a situation of risk, following the temporary suspension of the employment contract (8%), the entry into technical unemployment (7%) or even the loss of a job (4%)

The following graphic present the changes of behaviors adopted by Romanians, in the context of COVID-19 pandemic. In Figure no. 2 are presented with blue the aspects regarding the safety, with green the consumption aspects and with yellow the empathy ones:

Figure no. 2. Behavioral changes in the context of COVID-19 pandemic

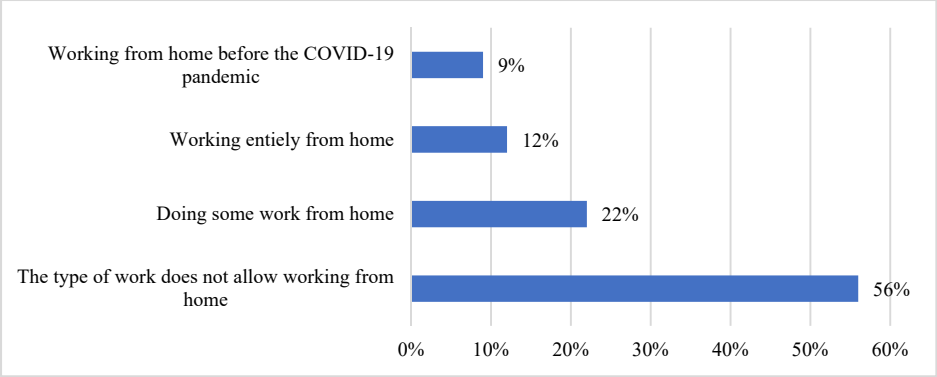


Source: MKOR CONSULTING

Almost all Romanians have changed their daily habits in response to the covid-19 pandemic. Most Romanians have adopted, at an individual level, measures to provide them with safety, related to hygiene and social distance (82% of Romanians wash and disinfect their hands more often and 75% avoid public spaces). Romanians' shopping habits have changed, almost half of Romanians choose to keep their expenses to a minimum (49%) and 30% turn their attention to online shopping.

In Figure no. 3 there is presented the proportion in which Romanians can work from home:

Figure no. 3. Work from home



Source: MKOR CONSULTING

For more than half of the Romanians who have a job, it is not possible to work from home due to the specifics of the work they do. After the outbreak of the pandemic, about a third of employees adapted their way of working, choosing from home either partially (22%) or in full (9%).

In essence, the economic and social impact of COVID-19 pandemic is highlighted by the following elements:

- changing the consumer behavior;
- working from home;
- lack of interaction between employees;
- rising unemployment;
- changing professional plans;
- limiting the possibility of free movement.

5. Conclusions

The Covid-19 pandemic radically changed the lives of Romanians both from a social perspective and from an economic point of view. Social distancing is understood and respected by the Romanians, at the same time they are aware of the impact on social relations. The awareness of the inherence of a new economic and financial crisis determines the Romanians to prioritize their expenses.

The paper provides a better understanding of the changes in the Romanian economy following the effects of the Covid-19 pandemic.

Further researches may expend our study by taking into account new data. Moreover, can be carried on researches that compare the socio-economic effects of COVID-19 pandemic with those of the economic and financial crisis of 2008-2009.

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The Analysis of Domestic and International Tourism and Travelling for Romania

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Abstract

Romania can claim the status of destination for exploration, leisure and travel and the recent developments prove the interest for developing and improving itineraries, and infrastructures, while pursuing to identify the most relevant issues for increasing the competitiveness of the Romanian tourism and travel sector. Our paper, by analysing some indicators relevant for the domestic tourism and travel sector attempts on one hand to identify how organisation and activities' improvement might contribute in achieving this goal, by estimating the preferences of domestic tourists as regards inbound and outbound tourism and travel. As the pandemic has played and continues to play an important role in the development of the tourism and travel sector, overall, as regards the HORECA industry, we will attempt also to draw some broad lines as regards 'guesstimating' the future of tourism and travel in the 'new normal' circumstances.

Key words: tourism, analysis, domestic, international
J.E.L. classification: Z32, Z39

1. Introduction

Considering how tourism contributes to the domestic economy, it might be regarded as a market fulfilling multiple purposes as, on one hand, availing itself of income/wealth-generating goods and services is a direct contributor to GDP while, and on the other hand, it is a jobs generator, including in the new context of the digitalised knowledge economy. Moreover, it turns into an increasingly more particular and specialised labour market, if we consider the various and still emerging types of T&T, from leisure, adventure, culture, exploration, to business, and even medical tourism. Thus, it is one of the most fast developing components of the entire services' industry, and it could play a more significant role for Romania's economy, as evidenced by other countries where T&T represent a matter of importance for the national economy, and impact at world level.

However, the current pandemic has brought to light significant and sensitive risks as it was one of the worst hit sectors, if we consider the general agreement of the experts in various fields – from medicine to public administration – who regard T&T as the prominent driver and spreader of the pandemic in the world. Hence, the T&T industry will need to reinvent and readjust itself for the post-pandemic period, while attempting to comply with the possible norms, regulations and operational conditions of the 'new normal'. In this paper, in the conclusions section, we will attempt to outline the possible path for the Romanian T&T sector, along with the one for the HORECA industry overall,

as it is one of the sectors still suffering from the delayed transition, as it is pointed out in the contents of the paper.

Finally, we underpin that while for the seaside located resorts the competition in the region is strong, the situation is considerably better and has strong improvement potential for the alpine regions of the country, and the unique features that cater to the new trends in customers' experience, as we intend to highlight in the present paper.

The paper aims to launch a debate for both academia, experts and actors in the field about the three major components we regard as essential for T&T in the future: sustainability, resilience and competitiveness.

2. Literature review

The idea of travelling for exploring new territories and learning about other cultures is not new, as it was strengthened by already established commercial relationships, but also inter-cultural exchanges as result of trade all over Europe, and beyond. This trend is recorded also in the case of the Romanian Boyars (the nobility), merchants and other categories of individuals yearning for adventure and culture. This is the source of many writings about our country from Giovanni da Pian del Carpine (1180-1252) a Franciscan monk heading to the territory of the Great Mongol Khan, to Marco Bandini (1593-1650), who fulfils tasks on behalf of the Holy See in Caransebes and Moldova. Pierre Lescalopier mentions that in Moldova, Wallachia or Transylvania the inhabitants call themselves Romanians. [..] Tout ce pays la Wallachie et Moldavie et la plus part de la Transivanie a esté peuplé des colonie romaines du temps de Traian l'empereur…Ceux du pays se disent vrais successeurs des Romains et nomment leur parler romanechte, c'est-à-dire romain …", Voyage fait par moy, Pierre Lescalopier l'an 1574 de Venise a Constantinople in 1574 (Cernovodeanu, 1960, p.444).

These swift developments triggered another initiative, the setup of the National Tourism Office in the year 1926 – the main national tourism structure that manages to survive also the turbulences after the second half of the 20th century. It is the ancestor of the National Tourism Office "The Carpathians" as it is renamed during the communist period. Established initially as private body for promoting and developing the Romanian tourism it gains the status of a state-body under the subordination of the Ministry of Interior with attributions and tasks of guiding and monitoring domestic and international tourism as of 1936.

The period between the two world wars is the one when attention is paid to the touristic development of several coastal locations: Mamaia, Carmen Sylva, later Vasile Roaita and nowadays Eforie Nord and Eforie Sud, Mangalia, but also to the development of balneary spa locations like Techirghiol, Herculane, Olanesti, Govora, etc.

Unfortunately, tourism development after the Second World War undergoes a hiatus period, with contradictory evolutions, with both positive and negative components encountered also in the other countries of the Soviet bloc.

The data show that tourism was one issue of concern, and this is proven by the unprecedented expansion of tourism accommodations (Table 1).

Table no. 1 Number of tourism accommodations for leisure and balneary tourism over the period 1970-1980

Touristic entities	1970	1975	1980
Hotels	490	633	677
Hostels	34	88	105
Chalets	181	203	200
Halting places	177	187	187
Villas, pavilions, touristic boarding houses and balneary complexes	1316	1503	1561
Total	2198	2614	2730

Source: realized by author, based on data provided by *NIS, Romania's Statistical Yearbook, 1985, p. 324*

Over the first years of tourism in the period 1950-1990 the focus was on improving and exploiting the potential of the Romanian sea shore by building resorts like Neptun, Saturn, Jupiter and modernising Eforie Nord, and Sud, Mamaia. Thus, the outcome was the construction of more than 200 hotels, including other facilities like small wooden bungalows and camping locations, so that the accommodation capacity by the mid-eighties was around 155.000 places (NIS data).

As mentioned, the data need to be taken with caution, an example being the analysis of the accommodation structures in tourism, as reflected in different statistical data arguments. However, developments were not limited to the Romanian coastal potential, but also pursued the improvement in the alpine area, and all over the countries' territory. The records show that by 1970, Romania availed itself of 2.385 accommodation entities (Murgescu, 2010, pp. 374 -380) or according to the official data of Romania's statistical yearbook of 2198 accommodation entities. The total number of such tourist accommodation entities amounted to 3490, from among which 828 were hotels, with a total accommodation capacity of 418.944 places, out of which 168.895 in hotels by the end of 1989.

The structural reform after 1989, indeed the entire period of the nineties is marked by complex and contradictory trends of the transition period, which affect the tourism industry as well. The main issues defining the period for the tourism sector are related to the lacking institutional experience in managing the market economy, in general, and the tourism marketThe main privatisation forms were: selling patrimony assets of trading companies with state-owned capital; cessation of shares held by state-owned companies to joint-venture companies; selling shares of the Ministry of Tourism to the companies' in the Ministry's portfolio by using the MEBO method, or by using this method together with public tenders, and selling assets by open auction.

Tourism was thus pushed into a deep crisis over the nineties, and the return to a quasi-normal development will cover the entire 2000s, based on the findings of the Substantiation Note for the Governmental Emergency Ordinance no. 32/1998, which later will become Law 155/06.04.2001, for the privatisation of trading companies in the tourism sector. The Note is beginning by acknowledging that the privatisation process was too slow, and continues by enumerating all the errors and shortcomings of the privatisation process up to the respective date. Moreover, it provides a succinct image regarding the various negative factors that affected the process, from the political ones, to the lacking national expertise not only as regards privatisation, but also in organising and providing tourist services of quality.

The explanations vary from the decreasing attractiveness of the touristic packages for the coastal resorts, but also for the alpine and balneary ones, to the increasing higher supply of touristic offers abroad in various countries inside, and even outside Europe at competitive prices.

By the end of the first decade of the 2000s, the image changes completely, as Romania adjusts increasingly swifter to the requirements of a modern, flexible and even environmentally focused tourism. The country becomes more integrated into the new global tourism and travel trends, meaning alignment to environmental protection imperatives, to technological and digitalised progress and digital techniques for improving the quality of services, and of the integrated packages provided.

One issue identified over this period, and which continues to show that the initial difficulties in identifying proper policies, and strategies are not eliminated completely, especially as regards tourism marketing is that Romania, according to Eurostat data continues to be among the countries with the smallest levels of inbound and outbound tourism.

The present state-of-affairs indicates that the current trends are the signs of a new transition, from cultural tourism to creative tourism in the 21st century. Moreover, there are encouraging signs that the T&T sector has assimilated the lessons from the first decade of transition and privatisation and, nowadays, the sector attempts to 'rebrand' itself by identifying the most valuable itineraries, destinations, and possibilities of combining the various trendy types of tourism.

The period 2010 to 2019/2020 shows that T&T in Romania follows the overall trend of European tourism, while attempting to identify the best competitive advantages compared with its immediate neighbours and member-states of the EU as well, respectively Bulgaria and Hungary.

First, we mention that 2010 is the year when the financial-economic crises began to make its effects felt also in Romania. Nonetheless, domestic tourist showed interest in travelling to different areas of the country. It is also remarkable, when comparing to the next years, that the first position

continues to be held, all over the period by the coastal area, and the touristic resorts located in the area.

Thus, the total number of Romanian inbound tourists was by 113841 thousand as regards tour operating agencies, and over 44% opted for the seaside, while only 3% focused on cultural tourism, 2% focused on sight-seeing in the Danube Delta, at par with religious pilgrimage. Only 22% of total domestic tourists opted for the alpine area, while 12% for spas' areas.

In the case of agencies with sales activities, for the same year, the situation is slightly different as regards the total number of customers, respectively 49584, which is less than half of the number recorded for tour operating agencies. This is the reason why, also the preference of the customers is reflected by their option to 62% for the coastal area, 18% for the alpine area, for spas' areas 10%, a comparable preference for the Danube Delta, 2%, and only 1% showed interest in cultural tourism.

The decade proves to be a profitable one for domestic tourism, on an ascending path, as the figures for 2015 and 2019 show, as the numbers increase, but also here the customers show a considerable preference for tour operating agencies as regards inbound tourism destinations, and the coastal area remains on top of the domestic travel preferences.

Leisure is apparently prevailing, as seaside resorts are known for catering throughout the period to customers who wish to enjoy beautiful leisure time, but also the nightlife of restaurants, clubs and pubs, and other entertainment activities developed by local entrepreneurs in the showbusiness.

However, also cultural tourism gains slightly more relevance over the entire period, and the number of travellers to the alpine area increases considerably, as well.

Noteworthy, is the difference in the numbers of customers for the two types of service providers and we consider that a sound tourism strategy should take this difference into account while developing plans, including the ones after the pandemic.

Concern rising is the fact that the national specific strategy is still under development, while requiring several adjustments. The latest annual country report over tourism in Romania is the one of 2017, and one issue that draws attention is that a new and better-adjusted strategy for tourism was expected by the end of 2018, and it is still not in place, even if supposed to be developed according to the Master Plan for National Tourism Development 2008-2026.

This is in line with, and substantiates again the issues that were not overcome from the preceding periods, respectively higher expertise and professionalization of human resources involved in the horizontal and vertical tourism industry and at all levels of responsibility.

The most critical issues are the human resources, with expertise at the strategical and operational level in the tourism and travel industry, respectively marketing and sales expertise, but also good professionals working directly with the customers from receptionists and maids, to cooks and waiters in the catering industry. In 2017, for instance, the deficit was estimated by 40%.

One explanation for the still slow recovery of the tourism industry could be in the fact that, like other segments of the economic active population many individuals with expertise migrated abroad after the accession, if not even earlier.

The key challenges, to which the current pandemic adds new issues, were identified in the above-mentioned annual report based on the type of priority: high, medium and low. As high priorities were counted as top priorities: the diversification of tourism destinations, the protection of natural and cultural heritage, improving the contribution of ICT and innovation, by taking advantage of the accelerated digitalisation, putting more emphasis on the collaborative economy in the tourism sector, better connectivity and transport facilities, improving education and skills in tourism. These top priorities are conditioned by improving investment in the sector, drafting more sustainable tourism offers along with improving the quality of these offers, and developing responsible tourism practices.

The necessity for better educated, skilled and trained workforce in tourism is still at high level, as many of the better trained opted to migrate and work in the tourism sector abroad.

This state-of-affairs is consistent and continued for the entire period between 2006/2007 (the year of accession to the EU) and 2017/2018, according to the available data.

One aspect that draws attention and needs further research is the discrete relationship between the attractiveness of inbound tourism and employment opportunities in the sector, as despite its huge potential, Romania hasn't managed to develop the sector to its full potential. Thus, it is noticeable that tourism sectors' contribution to total turnover was by 9.3% in 2015, and investments in tourism

in 2016 were by 8.1% from total investments at national level, on decrease as compared with the preceding year. For 2017 was intended an increase by 3.5%, and an increase by 2.6% for the subsequent 10 years up to 2027.

The income and profit accumulation levels in the tourism sector are directly related to the job creation capacity of the sector, and relies on the inbound tourism consumption which is a critical issue, identified in the present paper.

If we compare this fact, with the evolution of employment in the tourism sector, some interesting conclusions might be drawn, from the ones related to the need of improving education, skills, and tourism culture of the workforce active in the sector, to the ones about developing improved marketing strategies for inbound tourism.

The explanation for the low participation of the Romanians in tourism range from the low incomes obtained in households, to the poor infrastructure for travelling to the destinations of choice.

Nonetheless, both inbound and outbound tourism activities were forecasted to record continuous growth all over the period 2006-2027, and this is also reflected by the evolution of the employment in this services' industry. Paradoxically, as the growth of the sector was forecasted, the number of employees decreased, in direct correlation to decreasing investments, and to the slow speed and consistency registered in developing the various projects in the framework of the different programmes addressing the tourism sector.

Table no. 2 Evolution of the number of employees in tourism sector, over the period 2008-2018

Year	No. of employees (k)	Change, %
2008	658.8	5.95%
2009	542.9	-17.59%
.	518.7	-4.46%
2011	496.7	-4.24%
2012	498.8	0.43%
2013	492.1	-1.35%
2014	526.5	7.00%
2015	542.2	2.97%
2016	517.9	-4.48%
2017	539.3	4.13%
2018	532.5	-1.24%

Source: authors' own processing after Eurostat data

The past year, 2019 could be regarded as reference for what the general perception about tourism in Romania, as the figures regarding the number of persons undertaking tourist activity continued to be low, as compared with expectation, while most were interested in enjoying the coastal resorts. For instance, the platform Hotel Guru indicated according to own analyses that most sought-after destinations were the seaside and alpine tourism resorts, according to the preferences of 88% of the customers making use of the platform, and that 12% of them acknowledged in a survey that they opt for inbound tourism because they cannot afford holidays abroad. One key indicator in shaping the preferences of domestic tourists is the price paid for one night of accommodation.

These were in brief some of the data on which we relied our analysis hereunder.

3. Research methodology

The study intends to be part of the current tourism research. The basic tools used in the analysis of Romania's domestic and international tourism are direct, complete observations on the phenomenon and partial observations, relying heavily on desk-research as regards used data.

The statistical data used has as objective to reflect the condition of the Romanian tourism based on three main inquiry directions, respectively:

- The existing and operational accommodation establishments and the services' provided, including here type and capacity of the respective tourist establishments;
- Tourist traffic statistics, about arrivals, overnight stays, average length of stay, participation to external actions, numbers of Romanian tourist abroad, type of transportation means, number of inbound Romanian tourists and incoming activities, domestic and outbound tourism.

The variables used in our research are both direct, resulting from data gathered from the various tourism and travel related statistics, to which indicators are added that were obtained by processing gathered data based on mathematical relationships.

4. Analysis of accommodation establishments and service provision in Romania

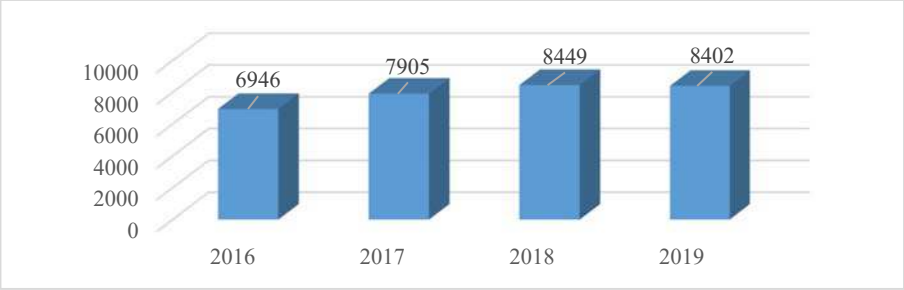
Accommodation has in its structure two prevailing types of accommodation units:

1. First component is held by the profit pursuing sector, and includes all types of accommodation and various types of catering units from restaurants to fast foods;

2. The non-profit/non-commercial sector is represented by particular types of accommodation possibilities provided by either the educational system or the religious groups.

The tourist accommodation units in Romania show for the period selected, 2016-2019 only slight variations as regards their numbers. Nonetheless, it is to be noticed that after a peak in the period 2016-2017, the agri-touristic boarding houses record a decrease in the subsequent years, and only 2800 are registered for the year 2019. The numbers of the best-represented accommodation type, respectively hotels, decreases as well in 2019, after peaking to 1633 in the year 2018. However, constant growth in the number of such accommodation units is registered for hostels, and for the touristic houselet-types.

Figure no. 1. Evolution of the number of tourist reception facilities



Source: Authors' own processing after NIS, Tempo-online

Evolution of the average index: $I = \sqrt[n-1]{\frac{y_n}{y_1}} = \sqrt[3]{\frac{8402}{6946}} = \sqrt[3]{1,20} = 1,062 = 106,2\%$ (1)

Evolution of the average rate: $R = (I - 1) * 100 = 6,2\%$ (2)

During the 2016-2019 period, the number of tourist accommodation units increased 1.06 times, meaning an average increase of 6,2%. The number of accommodation units is growing in the analyzed period due to the new investments attracted as a result of Romania's development and promotion programs

Evolution of the average index: $I=\sqrt[n-1]{\frac{yn}{y1}} = \sqrt[3]{\frac{350154}{322186}} = \sqrt[3]{1,086} = 1,027 = 102,7\%$ (3)

Evolution of the average rate: $R = (I - 1) * 100 = 2,7\%$ (4)

It is noted that in the period 2016-2019 the number of accommodation units increased by 1.02 times, meaning an average rise of 2,7%. The trend registered is a growing one, which may be due to increased tourist demand.

Analysing the evolution of the number of existing accommodation places in the tourist accommodation structures during the period 2016-2019, we can see that these are steadily increasing, which means that the Romanian tourist reception facilities are constantly growing.

In terms of catering equipment, Romania has all types of restaurants and fast-food unities.

Table no. 3 Tourist traffic

Year	Arrivals		Overnights		Length of stay
2016	T	10917361	T	25274901	2,31
	R	8445949	R	20462848	
	S	2471412	S	4812053	
2017	T	12056276	T	26915676	2,23
	R	9307004	R	21647692	
	S	2749272	S	5267984	
2018	T	12809887	T	28449128	2,22
	R	10024482	R	23144216	
	S	2785405	S	5304912	
2019	T	13268756	T	29870358	2,37
	R	10597048	R	24603394	
	S	2671708	S	5266964	

Source: authors' own processing based on data from the National Institute of Statistics, http://statistici.insse.ro/

Legend: T= total number of arrivals, R= number of Romanian tourists' arrivals,
S= number of foreign tourists arriving, Average length of stay: S=Overnights / Arrivals

The evolution of total arrivals of tourists has increased consecutively in all years of analysis. The total number of tourists' arrivals increased 1.06 times during the period 2016-2019, which means a 6,5% rise. Regarding the number of foreign and Romanian tourists, this is increasing in all the 5 years analysed. The higher number of Romanian tourists than foreign tourists is explained by the fact that Romanian tourists have money to go to their country more than outside the country, and foreign tourists prefer other countries.

The total number of overnight stays has registered year-on-year increases, and we notice a considerable leap from 2016 to the last year of analysis (2019). It shows that the total number of overnight stays increased 1.05 times during this analysed period and that means an increase by 5,7%.

Average indicators of the evolution of total arrivals:

Evolution of the average index:

$$I=\sqrt[n-1]{\frac{yn}{y1}} = \sqrt[3]{1,21} = 1,06 = 106,5\% \quad (5)$$

Evolution of the average rhythm:

$$\boldsymbol{R = (I - 1) * 100 = 6,5\%} \quad (6)$$

Average indicators of the number of overnight stays:

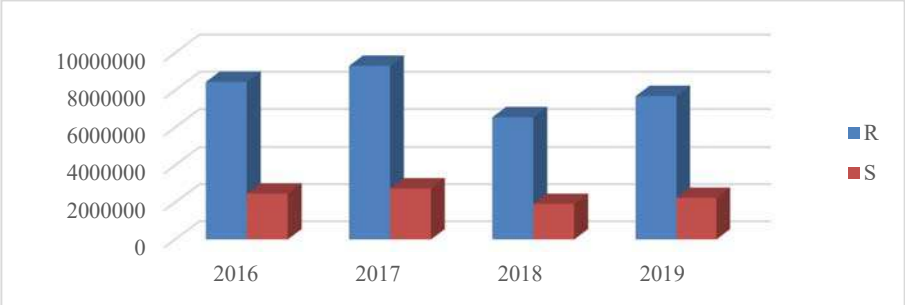
Evolution of the average index:

$$I=\sqrt[n-1]{\frac{yn}{y1}} = \sqrt[3]{1,18} = 1,05 = 105,7\% \quad (7)$$

Evolution of the average rhythm:

$$R = (I - 1) * 100 = 5,7\% \quad (8)$$

Figure no. 2. The comparative evolution of the number of Romanian and foreign tourists.



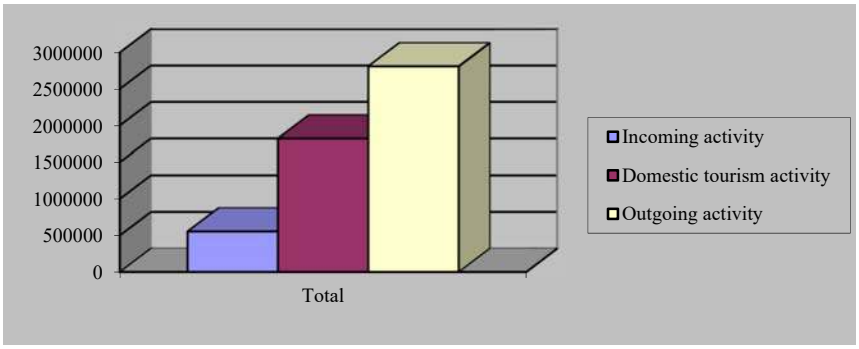
Source: authors' own processing based on data from the National Institute of Statistics, http://statistici.insse.ro/

The total number of Romanian tourists who use travel agencies has increased from year to year.

The first preference of the Romanian tourists is Greece, followed by Bulgaria and Turkey due to the seaports. The opposite is Brazil and Canada. Beginning from 2014 and until 2016, there is a steady increase in the interest of Romanian tourists for Thailand. These figures must be related, however, to the small share of population that practices tourism activities (0.5%), and to the income level, in general (see Figure 3).

Departures represent the unit of measure for Romanian visitors traveling abroad registered at the exit from the country. The same person can make several trips abroad, being registered each time with a new departure.

Figure no. 3. Number of tourists participating in incoming, domestic and outgoing tourism activities



Source: authors' own processing based on data from the National Institute of Statistics

The data processed in our model, prove to be in accordance with estimates performed not only at national level, but also at European level, confirming that the increase in Romanian's appetite for tourism and travel is still conditioned by the income of households' objectively and partly subjectively by their wish to explore, sightsee, and spent quality leisure time in foreign countries. Nonetheless, the participation of Romanians to European tourism remains, all in all low and was by only 0.5% according to Eurostat data in 2018.

The evolutions of the Romanian tourism sector are contradictory, which signals the need for improved programmes embedding projects that should be more consistent with the key priorities mentioned in the national annual reports on tourism as regards Romania. This is currently an imperative, if we take account also of the changed circumstances triggered by the outbreak of the COVID-19 pandemic by the end of 2019 and the beginning of 2020.

5. Conclusions

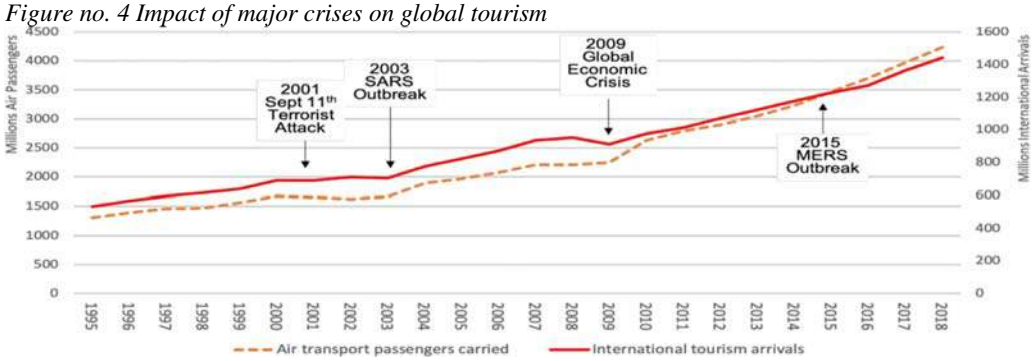
The forecasts of UNWTO, and of the World Travel and Tourism Council (WTTC) up to the year 2019 were optimistic, sometimes entering even into contradiction with the perception of the domestic population as regards some favourite countries of destination. The debates turned increasingly heated and can be identified at the borderline between economic interests, social interests and perceptions. More and more papers focused on issues related to tourism and degrowth as the society at large, began discussing more and more about the overtourism phenomenon which seemed to enter into conflict with sustainable development goals in some sensitive issues (Koens *et al,* 2018). Leaving aside other parts of the world, especially the known 'touristic magnets' of the European continent represented by huge urban agglomerations like Rome, Venice, Paris, Madrid, Athens or Amsterdam, to name but a few, were concerned increasingly more with the high numbers of tourists travelling to these cities either for short weekend trips, or on various special occasions. It was an increasingly heated debate as the interests of the tourism sector aiming to increase incomes and profits entered collusion with the interests and the perspective of the inhabitants of the respective cities in this respect (Milano *et al*, 2019, pp. 353-57)

Nonetheless, the tourism and travel industry were thriving, and around 10% of the world GDP was ensured by the sector by 2019, which can be translated into accounting for millions of jobs in the industry, or in related industries that were suppliers for tourism goods and services.

However, the actual milestone was 2018, the 9th consecutive year of sustained growth of the industry, despite shocks, which apparently showed that this service sector was both sustainable and resilient (UNWTO, 2020).

If we analyse the link between travel and events that could have been used as warnings, we notice that the travel industry was almost imperceptibly affected by the events mentioned above (Figure 4).

Figure no. 4 Impact of major crises on global tourism



Source: authors' own processing based on data from *World Bank (2020a, 2020b)*

It could be, that this was at the root of a certain complacency, all over the world, and in Europe when the first warnings about SARS-COV2 reached the European continent. In but a few months, all decision-factors and the public were identifying the culprits as being the globalised business sector, including here the tourism and travel industry as it was – at least for some countries – an important segment of the SME sector.

Travel industry, an important chain link between residence and destination, irrespective of the travel purpose, from leisure and exploration tourism to business travel, etc., has followed the general trend of the sector, as borders began closing, at latest by mid-March, and lockdowns were decreed in almost all European countries. Instantly, everything directly, or indirectly related to the tourism and the wider HORECA industry was affected severely: air travel, road trave, domestic and international tourism, day visits, cruises, accommodation, caffes and restaurants etc. This pandemic has changed abruptly the perspective from the above-mentioned overtourism (Dodds *et al*, 2019) to non-tourism for all European countries, and all over the world.

For instance, SMEs play a huge role in the sector, and their incomes and profits are estimated to take a drop of about 60% to 80% in 2020, while the industry will not recover completely before 2024.

Another aspect worth considering is how best to assist the domestic sector on the long road to recovery, by improving existing and even designing new mechanisms to ensure the necessary financial means in the sector. This means, innovating in the field of financing mechanisms based on better coordination in the sector to which are added new means of financing like revenue pooling structures for hotels, joint equity funds for SMEs in the sector all these initiatives and variants thereof being backed by the government based on sound policies.

Finally, at this crossroads between overtourism and non-tourism, another sensitive issue is the one of statistics, and the analytics employed in the sector. It is obvious that the pandemic has annulled the value of the prediction models used before it. Now, as the sector will need to put even more emphasis on digitalization, it should be clear that the models need to be changed, and adjusted in order to be able to predict relatively correctly the demand in the post-pandemic period, but also now, as the pandemic still evolves but it became clear to economies all over the world that complete lockdown is not an option, and cannot be supported by any economy.

Romania has the opportunity of taking advantage of these changed circumstances, and should pursue more decisive steps in initiating an improved coordination in the sphere of tourism by building an operational interface for the dialogue between government and stakeholders in the sector, and that would assist also the dialogue between the most representative stakeholders so as to pool financial and other types of resources for ensuring the sustainability and resilience of the sector to the current pandemic shock. Next, the same interface could be used to address some of the key priorities, and make use of this period to improve the education, skills and qualification of the workforce in the tourism sector, including for the managerial levels, as to strengthen an improved hospitality culture at the level of the managers active in T&T. Moreover, Romania should speed up the digitalization in the sector, and develop an own analytical toolset for predicting and modeling future scenarios of domestic and international tourism for the residents of the country.

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Evolution of Contributions Paid by Pension Participants

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Abstract

The current value of the pension is a measure of the value of future pension benefit flows, being defined as the amount needed at the time of retirement to purchase an annuity that generates the same payment flows as those promised by pension schemes. The current value is expressed by a multiple of the gross annual individual earnings, the average of the current gross pension values for the OECD as a whole being around 9.6.

In this paper we intend to make a series of predictions on the level of pensions that will have the current contributors to the pillar of the Romanian pension system. These forecasts will be based on a series of actuarial calculations, made on the basis of assumptions about the main elements that determine the level of pensions.

Key words*: private pension funds, annuity, annual rate, pension system*
J.E.L. classification: J21, J26

1. Introduction

The main directions in which the pension reform in Romania focused after 1990 were the devaluation of the real pension by inflation, despite successive indexations, the alarming increase in the number of pensioners through early retirement, the decrease in the number of taxpayers, the change of contributions, insufficient coverage by the pension system. pensions of certain categories and narrow collection rate, amendments to the laws on pensioners in agriculture, creation of the social insurance fund, its administration separately from the state budget and the disappearance of some special funds, changing the methodology of calculating the pension, high administrative costs that could be reduced.

The pension can be considered as an annuity that must be received by a person (called beneficiary or pensioner) from a company (or sometimes from another person), based on a contract concluded between the two partners. Usually the payer of the pension is the state, an insurance company or a pension fund.

Due to their timing, pensions received in the form of annuities are intended to provide the beneficiary with a secure flow of income for the future, usually intended to ensure his livelihood from retirement.

Pension payments made in the form of annuities are based on one or more previous payments (also called contributions) made by the person to receive the pension in favor of the pension provider. These payments are called premiums. Single-contribution annuities are called single-premium annuities, while flexible annuities are based on a flow of payments over a period of time.

For pensions paid as fixed (or constant) annuities, the insurer assumes the obligation to provide the principal and a minimum interest, while the variable annuities are related to the return on investment made by the administrator.

2. Literature review

Given that the birth rate is falling dramatically and people's average life expectancy is increasing, an aging population is a major risk factor for the whole of Europe (Turner, 2011, p.95). Pensions in the private system will generally have a positive influence on participants' incomes after cessation of

activity. Through them, people who adhere to private pension schemes will be able to obtain better levels of future pensions and especially to improve their salary replacement rates within the pension (Stewart, 2010, p.139).

Future pension payments will be determined by the amounts accumulated in the accounts of each participant in the pension system. These amounts in turn can come both from the contributions made during the participation in the system and from the investments made, in the case of private pensions (Colomeischi, 2011, p.65).

The contributions paid by the participants to the Romanian pension system, whether state or private, are calculated as a percentage of the gross salary of the employee (Popa, 2011, p.97).

3. Research methodology

The proposed model for calculating the estimated future value of pensions that will benefit current taxpayers in the Romanian pension system, in terms of the state pension pillar (Pillar I), contains five variables, divided into two categories: two external variables, where it includes the life expectancy of the population and the income of the participants, and three internal variables, which include the contributions paid by the participants, the return on investment and the administration fees. In the case of each variable, we will make various hypotheses that capture as well as possible the current framework from which the predictions are made, as well as certain coordinates on which they will evolve in the future.

The calculation of the pension takes into account first of all the life expectancy at retirement age, defined as the average life expectancy of an individual or the average number of years of life remaining at a certain age. Life expectancy is directly determined by the mortality rate, which is worldwide in a process of continuous growth over the last 50 years.

The second external variable we took into account in calculating the projected value of pensions of the active population is represented by the gross earnings of the participants in the pension system.

An extremely significant negative aspect of the public pension system in Romania was the inequity in the calculation of the pension of different generations of pensioners. This shortcoming has been largely removed by the processes of recorrelation and recalculation of the pensions initiated. The recalculation of pensions aimed at eliminating the inequities that still existed between the different categories of pensioners in the public system, depending on the retirement date. The average annual score, according to the calculation formula, for all pensions from the former state social insurance system was determined by the pension recalculation process.

Currently, the legal regulations in the field of pensions provide for the payment by employees of an individual social insurance contribution of 10.5% of the gross salary to the social insurance system.

The share related to privately managed pension funds is 3.5% of the gross salary, being included in the individual social insurance contribution due by the employee. This quota was valid only for 2012, increasing annually by 0.5%, to the level of 6% of the non-taxable gross income.

According to Law 204/2006 on voluntary pensions, the total contribution to an optional pension fund cannot exceed a maximum of 15% of an employee's gross monthly taxable income.

The gross salaries of the participants in the pension system have had a positive evolution in recent years, increasing annually in real terms, an increase that has led to higher accumulations in the accounts of participants in the pension system. These increases were determined by the increase of GDP and by the increase of labor productivity (Colomeischi, 2018, p.3).

In the following I will present the way of working and the results obtained following the calculation of the contributions paid by the participants.

4. Calculation of contributions and their evolution

According to the principles of actuarial calculation in connection with staggered payments, the final value accumulated after a certain period of time, as a result of a deferred constant annuity is calculated according to the formula (Burlacu, 2000, p.125):

$$S_n^p(i) = \frac{(1+i)^n - 1}{i}, \quad \textbf{(1)}$$

where:
n = duration of the operation (expressed in years);
i = annual interest rate;
$S_n^p(i)$ = final value of an annuity equal to 1 p.m. for n years, with an annual interest rate i.

If the amounts deposited are not constant then the final amount accumulated after a period of n years will be calculated according to the formula (Burlacu, 2000, p.125):

$$S_n^p\left(\left(S_j\right)_{j=\overline{1,n}}, i\right) = \sum_{j=1}^{n}\left[S_j \cdot (1+i)^{n-j}\right], \quad \textbf{(2)}$$

where:

$S_n^p\left(\left(S_j\right)_{j=\overline{1,n}}, i\right)$= the final value of an immediate deferred annuity and limited to n years with variable annual rates;

Sj = annuity paid in year j, $j = \overline{1,n}$.

In table no. 1 we calculated the contributions accumulated on behalf of a beginner participant in the private pension system, having a monthly salary of 1,000 lei, under the conditions of a contribution rate of 6%. I chose the monthly salary of 1,000 lei close to that of a beginner aged 20, in order to be able to calculate the contributions accumulated in the account for longer periods of time (up to 40 years).

Table no.1 The value accumulated in the account of a beginner participant in private pension funds with a gross monthly salary of 1,000 lei, after certain periods of time (lei)

Period (years)	Annual return on investment r=0%				Annual return on investment r=3%				Annual return on investment r=4%				Annual return on investment r=5%			
	Annual increase in income (%)				Annual increase in income (%)				Annual increase in income (%)				Annual increase in income (%)			
	v=0%	v=3%	v=4%	v=5%	v=0%	v=3%	v=4%	v=5%	v=0%	v=3%	v=4%	v=5%	v=0%	v=3%	v=4%	v=5%
5	3.600	3.876	3.972	4.080	3.828	4.116	4.212	4.320	3.900	4.188	4.296	4.404	3.984	4.272	4.380	4.488
10	7.200	8.376	8.820	9.288	8.256	9.510	10.008	10.512	8.610	9.960	10.452	10.968	9.060	10.416	10.920	11.448
15	10.800	13.596	14.700	15.924	13.392	16.584	17.844	19.224	14.412	17.760	19.080	20.520	15.540	19.032	20.412	21.912
20	14.400	19.632	21.861	24.408	19.341	25.632	28.272	31.260	21.141	28.140	30.918	34.101	22.808	30.960	33.948	37.296
25	18.000	26.640	30.588	35.220	26.256	37.140	42.012	47.700	29.988	41.808	47.064	53.172	34.468	47.232	52.920	59.508
30	21.600	34.761	41.181	49.032	34.260	51.660	59.940	68.912	40.380	59.640	68.712	79.596	47.832	68.228	79.212	91.128
35	25.200	44.184	54.096	66.660	43.536	69.876	83.148	99.708	53.028	82.740	97.524	115.860	65.028	98.736	115.296	135.696
40	28.800	55.101	69.792	89.148	54.288	92.580	113.028	139.101	68.124	112.164	135.612	165.240	86.976	138.048	161.124	197.928

Source: Own elaboration

Several scenarios were imagined in relation to the increase in income, denoted by v (with annual percentages of 0%, 3%, 4% and 5%), respectively in relation to the return on investments, denoted by r (with the same annual percentages of 0 %, 3%, 4% and 5%). The values were calculated according to the following formulas (Colomeischi, 2014, p.397):

$$\begin{cases} C_n = \sum_{j=0}^{n-1}\left[C_{x+j} \cdot (1+r)^{n-1-j}\right] \\ C_{x+j} = 12 \cdot c \cdot k_{x+j} \cdot SMBE_x \cdot (1+v)^j, \forall j = \overline{1,n} \end{cases}, \quad \textbf{(3)}$$

where I noted:
n = the period (expressed in years) for which the accumulated amount is calculated;
x = age of the person at the reference time (considered here the year 2010);
C_n = amount accumulated after *n* years;
C_{x+j} = annual contribution paid at age *x+j*, $\forall j = \overline{1,n}$;

r = annual rate of return on investment;
c = the share (expressed as a percentage) of the gross salary according to which the contributions are paid;
k_{x+j} = the share of the person's salary compared to the average gross salary per economy at age *x+j*, $\forall j = \overline{1,n}$;
$SMBE_x$ = average gross monthly salary per economy in the reference year, when the person was age x;
v = annual real growth rate of income (of the average gross salary per economy).
From the previous formulas it is observed that in the calculation of the value accumulated over time, the weights that the person's salary has in the average gross salary on the economy with advancing age are taken into account, weights presented in Table 2.

Table no. 2 Average weights of the average gross salary for the different age groups of employees in relation to the average gross salary by economy (%)

Age of employee	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**63**	**65**
Share of gross salary in SMBE at age *x* (k_x)	52,76	64,19	76,24	88,38	**100**	109,86	117,19	121,35	121,35	121,35	121,35

Source: Own elaboration

This explains why a certain real increase in the average gross salary in the economy entails a higher increase in the value of the account than in the case of a similar increase in the return on investment. The real increase of the salary by a certain percentage in a year will practically multiply with the increase of the share of the person's salary compared to the average gross salary per economy.

We will further analyze the influence of the annual salary increase on the amounts accumulated in the participants' accounts, by comparing the data from the first column of the table, in which the investments are not taken into account (r = 0%). Thus, it is observed that after 30 years in the participant's account will be found the amount of 21,600 lei if his income has not changed (v = 0%). However, if there is an annual increase in earnings of v = 3%, the amount increases by 60.94%, to the value of 34,764 lei. When the annual increase of income is v = 4%, the amount will increase to 41,184 lei, by 90.67% more than in the first variant and by 18.47% more than in the second. In the most optimistic version, when the salary increases by v = 5% annually, there will be an increase of 127% compared to the case of a constant salary and 19.06% compared to the situation v = 4%, reaching the amount of 49,032 lei. We thus observe that a 1% increase in the annual salary growth rate has an even greater influence as it applies to a higher reference percentage (the amount increases more when the rate increases from 4% to 5% than when it increases from 3% to 4%).

The increases will be all the more important as the accumulation period increases. After 40 years of contributions, the participant will have 28,800 lei if the income remains constant (v = 0%). However, if the annual salary increases by a real percentage v = 3%, the amount will increase by 91.33%, up to 55,104 lei. Assuming an increase v = 4%, the amount increases by 142.33% compared to the first variant and by 26.66% compared to the second, up to 69,792 lei. In the most favorable variant with v = 5%, the accumulated value will be of 89,148 lei, and the increase of 209.54% compared to the first case and of 27.73% compared to the variant with v = 4%.

In conclusion, the real increase in salary determines an increase in the value of the account, the longer the accumulation period and the more the increase applied to the percentage of growth v is applied at a higher rate v.

5. Conclusions

The sustainability of the Romanian public pension system requires the uniqueness of the model for calculating pension rights for all socio-professional categories of the population and, respectively, the renunciation of service pensions. At the same time, the increase in the number of taxpayers (employees and employers) in the public pension fund could guarantee the possibility of periodically increasing the amount of pensions with the inflation index.

If we consider the pensions in the public system, their future evolution will be directly and essentially influenced by the way of calculating the value of the pension point. Assuming the correlation of the value of the pension point with the inflation rate, the real increases of participants' salaries, which will determine higher contributions to the system, will not be fully found in future pension levels, which will be more visible as it is calculated. gross and net replacement rates in pension income for younger generations. These replacement rates will decline significantly, reaching extremely low levels for the younger generations. Also, the decrease in gross and net income replacement rates will be more pronounced the higher the annual growth rate of wages.

If the method of calculating the value of the pension point on the basis of the average wage in the economy had been maintained, the gross replacement rates of income would have remained constant over time, so that real wage increases, which lead to increased contributions, -would be found equally in future pension levels.

The purpose of introducing private pensions in Romania was, first of all, to reduce the responsibility of the state pension system for ensuring a decent living for people who have reached retirement age. On the other hand, it was considered to obtain superior performances by investing the money coming from the participants' contributions for the remaining period until retirement.

By moving from the correlation of the pension point in relation to the average gross wage per economy to the correlation with the inflation rate, partly by 2030 and totally after 2030, there will be a significant decrease in gross income replacement rates within the pension, and for current Pillar II taxpayers, who will combine the state pension with the mandatory private pension. If they do not take out additional insurance, they will be in danger of not being able to ensure a minimum standard of living. One solution available to them would be to take out additional insurance or join voluntary pension funds.

Given that the birth rate is falling dramatically and people's average life expectancy is increasing, an aging population is a major risk factor for the whole of Europe. Not only is Romania no exception, but it has one of the most pessimistic prospects in these respects, in part due to the large number of emigrants leaving the country. Consequently, as the public pension system is designed, an employee will have to support more and more retirees through his monthly contributions. If the ratio is currently 1 employee to 1.3 retirees, in 2050 an employee will have to financially support more than two retirees. One possible solution identified is to hold people accountable through savings and personal account, as well as financial planning for retirement, so as to ensure a decent old age. These objectives are only possible through strong support for the expansion and development of the private pension system.

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Ontologies and Ontological Representation

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Abstract

The present paper aims to present the main theoretical and practical aspects of what ontology and knowledge bases mean, having the role of providing as precise information as possible. Ontologies are considered to be a vocabulary of concepts, and the purpose of this "vocabulary" is to ensure a semantically based level of knowledge based on semantics in order to define semantic ideas and relationships between them. Starting from this concept, it should be noted the idea of using the knowledge by a system that groups them into a knowledge base, which means representing the experience accumulated by human specialists in solving the problems in the field in question. This knowledge refers strictly to an ontology of the domain, to the rules used, but also to the restrictions that minimize the search space.

Key words: information society, ontology, knowledge society, data mining
J.E.L. classification: M1, M15, M21

1. Introduction

In the last decade, ontologies have become an important means of knowledge exchange and integration, and after the vision of the semantic web was transposed, the ontology became a basic element for solving computer problems, so that the ontology is recognized, and in the field of knowledge representation, processing and retrieval of information.

The information society is a synagogue of the information age, so we must be aware that information becomes a strategic and fundamental resource. By definition, information is the basis of reasoning for the purpose of acquiring new knowledge. For the establishment of the information society, it is important to identify the rules by which they operate and the social and economic relations.

2. Literature review

The notion of information society is probably well understood by the vast majority of people, as it refers to a human society in which the use of computers is ubiquitous, and this omnipresence leads to a huge volume of information stored in databases, when they are transmitted, but also for their processing for different purposes (Draganescu, 2001, p.137).

Two important events marked the emergence and development of the information society:

- The first dates from 1992, when the Vice President of the United States of America, Al Gore, spread the idea of the Information Highway. The concept had a strong technical and technological character and was based in principle on the technological increase of the United States in the field of electronics and communications. It was a time when the United States had the technical, technological and financial resources to develop equipment and models that would provide the transmission of information in more cost-effective ways;
- Europe, being put at risk by this American challenge, took the lead and produced the report entitled "Europe and the Global Information Society: Recommendations for the Council of Europe" (also known as the Bangemann Report). It is the moment when the Council of

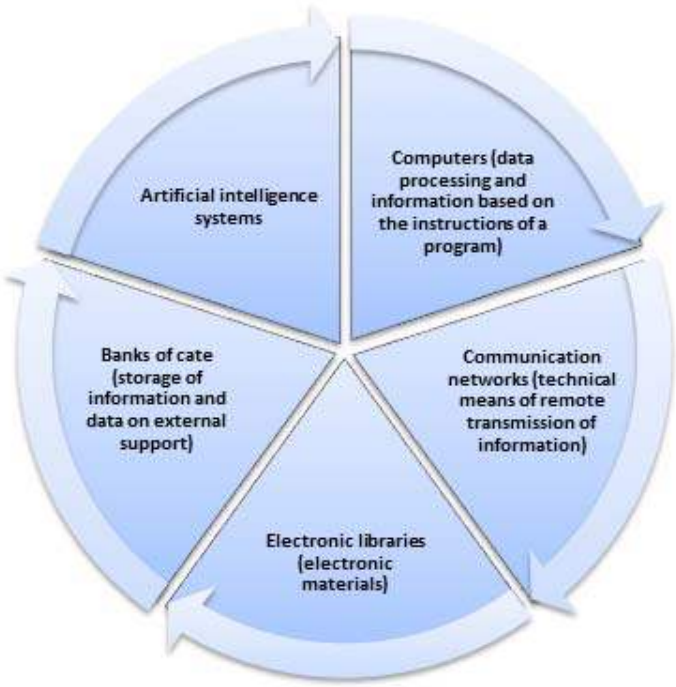
Europe decided to set up the Council for the Information Society (CIS) a specialized body dedicated exclusively to establishing tangible ways of applying the guidelines in the Bangemann report, and on July 19, 1994, the first European action plan for the Information Society was devised, nicknamed "The Road to Europe for the Information Society".

The information society is a synagogue of the information age, so we must be aware that information becomes a strategic and fundamental resource. By definition, information is the basis of reasoning for the purpose of acquiring new knowledge.

The characteristic features of the information society are represented in figure 1.

The notion of the knowledge society is used today throughout the world, being a compression of the term of a knowledge-based society, which represents more than the information society, including this one.

Figure no. 1 Characteristic features of the information society



Source: Own elaboration

The term "knowledge society" appeared in 1970 to underline the significance of scientific and technological knowledge for the economy and society. What's new at the moment is the volume of knowledge we have available that goes beyond the world of information technologies. Knowledge is not only a component of the modern economy, but becomes a basic organizational principle of the existence of mankind. It is part of a knowledge society because we systematize our social reality based on the knowledge we have (Gruber, 1993, p.107). According to the definition of Alan Newell, one of the pioneers and theorists of artificial intelligence, knowledge represents what can be an attribute of an agent, whether human or artificial, so that his behavior can be defined as rational (Rosenbloom, Allan, 1993, p.236). In the context of ordinary computer programs, knowledge is embedded in the program, many of which are embedded in the mathematical theories underlying the programs, and others are implicit in algorithms or constructions written in the programming language. The knowledge that is used by the system is grouped into a knowledge base and represents the experience gained by the human specialists in solving the problems in the field in question, these knowledge referring to an ontology of the domain, the rules used and the space-constraining constraints search (Klaus, 2016, p. 175).

3. Research methodology

Ontology is a term that dates back to the seventeenth century, representing a branch of philosophy that analyzes the features of human being or existence (Berners, 2001, p.245). In the field of computer science or rather, in terms of the real domain, the ontology is a term designed for a purpose, namely to allow the modeling of knowledge about a particular domain, real or imaginary (Salim, 2009, p.187).

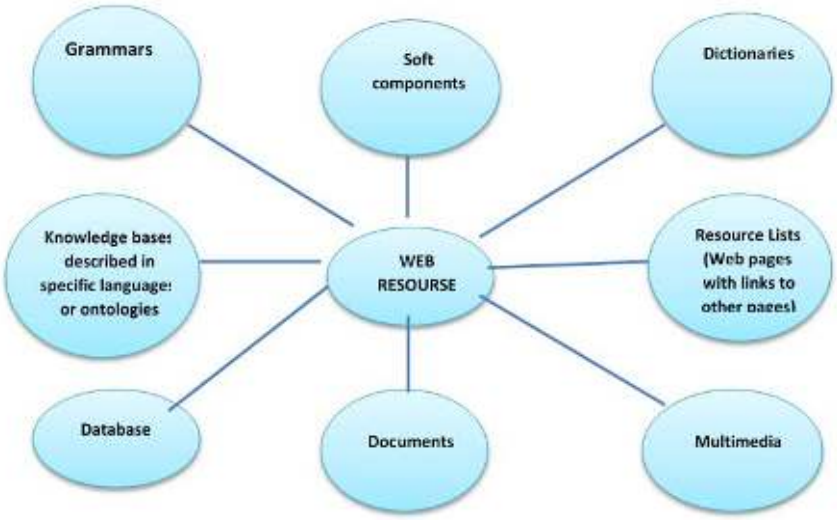
The main objective of an ontology is to represent a reusable conceptualization in which the specific details of the applications are ignored. The scope of an ontology refers to all the applications of the domain, not only to a certain application, and regarding the content of an ontology, here are the specifications of the knowledge in which the meaning of the structures is clearly represented together with the inference rules of the new ones. pieces of knowledge (Natalya, 2001, p.129). Depending on the domain in which they are used, there are two types of ontologies, namely (Avron, 2011, p.234):

- Ontologies for knowledge-based systems
- Ontologies used in human language processing systems.

The web is a huge repository of knowledge, both implicit, for example in texts or computer programs, and explicit in ontologies or knowledge bases.

At present, the Web is not only the most convenient and all-encompassing means of information and documentation, but also the place where human or artificial agents (computer programs seeking information or making electronic transactions) can meet "virtual" with partners. business or other activities. Thus it can be said that the Web is a space that supports the knowledge of human or artificial agents, not only through easy access to the places where it is stored but also through collaboration with other agents. The resources available on the Web (figure no.2) are of several categories as follows:

Figure no. 2 Resources available on the Web



Source: Own elaboration

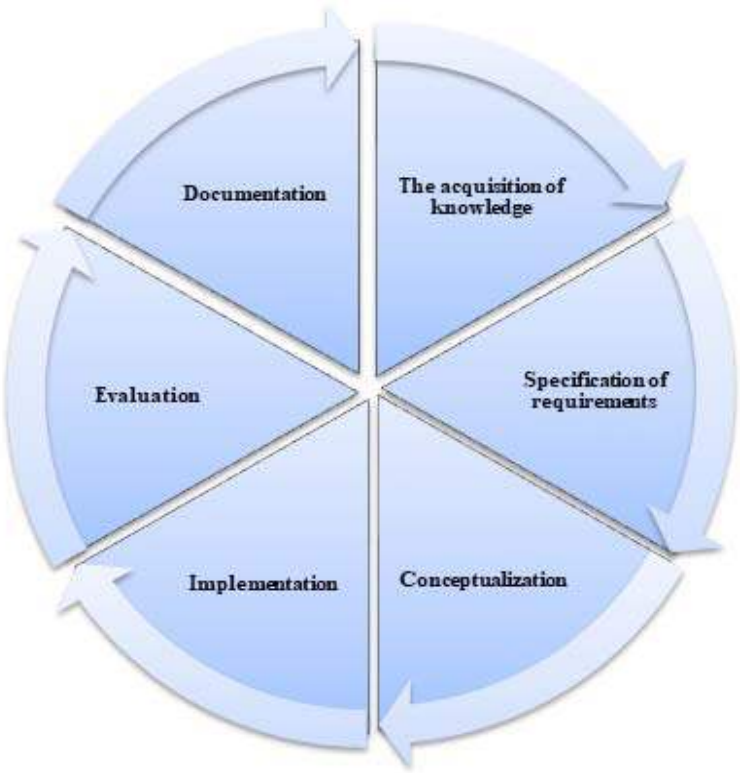
Most resources are characterized by beneficial language for understanding or processing their content. The language can be:

- Naturally, used by man in spoken dialogue or texts;
- Annotation;
- Knowledge representation;
- Programming.

At the moment, XML is established as a universal annotation and communication language on the web, in which all types of resources mentioned above can be coded.

The activity of building an ontology is complex and involves the research of the domain in detail, so the researches on the methodologies of building the ontologies are representative in this direction (Corcho, 2003, p. 65). In the works of A. Gomez-Perez (1998) the phases of building an ontology are presented, as follows.

Figure no. 3 Phases of building an ontology



Source: Own elaboration

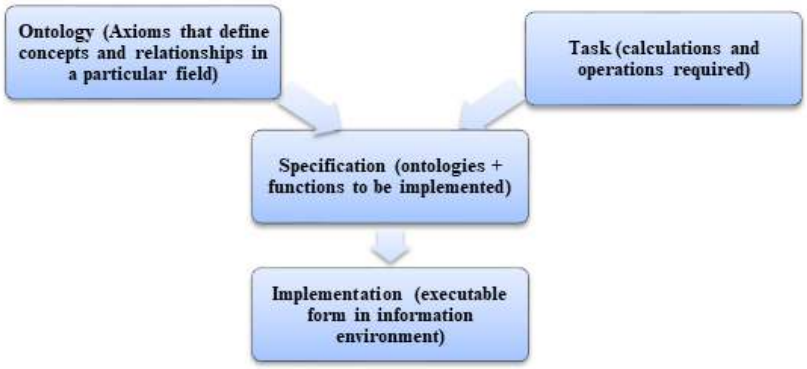
Ontological engineering, also called ontological construction, is a sub-domain of knowledge engineering that deals with the study of the methods and methodology for the construction of ontologies (Kaplan, 2018, p.325). In the field of enterprise architecture, an ontology is a sketch or schema used to structure objects, attributes and relationships in a constant manner. It can be said that the reuse of an ontology is, however, far from automation and requires a major effort from the systems developer. The process of applying an ontology requires transforming the specification from the knowledge level into an adaptable implementation. This operation is time consuming and requires consideration of:

- The context, the intention of the use and the representational language, respectively of the implementation language
- The specific task of the current IT application.

In general, the process of implementing ontologies is "open-source" and based on community involvement, but there are also ontologies developed by a small group of researchers for certain purposes. Moreover, current trends for developing ontologies are characterized by a high level of automation. Thus, we can talk about automatic or semi-automatic construction methodologies. These methodologies are based on: "data mining", "text mining" or collaboration between users (Smith, 1997, p.68).

The implementation takes place according to the diagram in the following figure no. 4:

Figure no. 4 Implementation scheme



Source: Own elaboration

4. Steps of ontological representation

The main steps that we must follow in the process of constructing the ontology are presented below and can be grouped into the following categories:

STEP 1: Constructing the ontology

A. Defining and understanding the ontology environment This section requires a top-down approach, from general to particular.

1. UNDERSTANDING THE DOMAIN - the area of interest for the development of the specific ontology.

2. UNDERSTANDING THE SECTOR - part of the area modeled by the ontology.

3. DATA UNDERSTANDING - the data available, the business logic and the way in which data can be processed in a semi-automatic approach.

B. Classification of data

4. CLASSIFICATION OF DOCUMENTS BASED ON TASKS - based on data available identifies the tasks and attempts to establish links between data and tasks. This can be achieved by applying a document classification algorithm.

C. Applying semantic similarity to the existing ontology

5. Enriching the ontology by adding additional semantic relationships based on a semantic matching algorithm presented in the next section.

Therefore, steps B and C represent the process of extracting information, this extraction of information will be implemented by using a method of measuring semantic similarity. This method is a combination of the following:

• edge counting - the use of a function that measures the path length between concepts within a semantic network

• Measurement of informational content - this refers to measuring the difference in informational content between two terms depending on their probability of occurrence.

This class of methods guarantees that the volume of the informational content of each term is less significant than the informational content of the summing terms.

STEP2: Refining Ontology

6. Refining is performed under the supervision of an expert in the field of ontology

7. Intelligent agents also overdee the entire process and record previous experiences in a knowledge base.

The first phases must be monitored by human experts in order to obtain a better quality of the ontology. Moreover, these phases require a high level of human intervention. Phases 4, 5 and 6 can be implemented automatically, at the same time must be supervised by experts.

5. Conclusions

Following the analyzed and presented, I support the idea that ontology structures knowledge and captures the meaning of the concepts specific to a particular domain, a fact demonstrated in the ontology we created. Therefore, any artificial intelligence program or general object-oriented program must include a reality design, an ontology.

With the rise of the volume of information available on the Web, it has been proposed to extend from the classical to the semantic Web because the classical Web is defined as a set of resources designed and processed only by human users compared to the semantic one, which allows the exploitation. by both human beings and cars. Due to the semantic representation of the content of information, through the semantic Web you can add features to the existing information for service automation, discovery, connection and deduction of knowledge. Therefore, the Semantic Web uses knowledge engineering to transpose knowledge representation tools and specifically focuses on ontology.

In other ideas, it is worth noting that the ontology is considered to be a body of knowledge, considering also rules of inference and logistics that refer to certain fields of activity. Moreover, ontologies must be conceived as a reusable model to form a common basis across the domain.

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Main Views in Bogdan Petriceicu Haşdeu's Economic Thought

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Abstract

Bogdan Petriceicu Haşdeu (1838-1907) was a historian, a philologist, an economist, a poet and a politician from Bessarabia, a descendent of a family of scholars. He was one of the most representative Romanian personalities of the 19th century. In his economic works he discussed the issues of Romania's economic development, both from an industrial and an agricultural viewpoint. As far as doctrine is concerned, he was a supporter of protectionism. The aim of the paper is to identify the specific characteristics of Haşdeu's economic thinking and to analyze his main ideas from a historical point of view.

Key words: nationalism, manufacture, protectionism, anti-semitism, land reform
J.E.L. classification: B31

1. Introduction

Culturally speaking, he continued the old Romanian encyclopedia tradition launched by the writings of Dimitrie Cantemir, alongside prominent intellectuals such as Gheorghe Lazăr, Ion Heliade Rădulescu, Alexandru Odobescu, Mihai Eminescu, or Nicolae Iorga. "Young genius, gentleman, master of all instruments of romantic knowledge (…) who knows he is predestined and trusts his star" as Mircea Eliade described him, Bogdan Petriceicu Haşdeu wrote about himself that he „enjoyed going off the beaten path (...) fiercely despising money and the day to come", which made him "confident in his own scientific curiosity" (Haşdeu, 1937, p. XLIX). Petriceicu Haşdeu studied in Vinnita, Camenţa, Chişinău, as well as at the University of Kharkiv. He was a judge, a professor and the director of the National Archives, and in 1877 he was elected member of the Romanian Academy. As a Member of Parliament, he militated for Cuza's reforms to be put into practice and he was an adversary of the "junimists" (supporters of *Junimea*), whom he considered to be cosmopolite.

His economic scientific research went into brochures, studies and articles in the written press of his times, but only for a short period of time, of only six years, which made C. Murgescu consider that the author "proved to possess a vast economic culture that in his opinion was not surpassed by any of the last century's economists" (Murgescu, 1994, p. 219). His economic thought is to be seized in his literary and historical works as well.

2. Theoretical background

Bogdan Petriceicu-Haşdeu was a noticeable successor of the 1848 ideology and his economic patriotism was based upon ethnic principles. The opposite of patriotism was cosmopolitanism (in "non-national" countries such as Switzerland and the USA (Neumann, Heinen, 2010, p. 119-120). Preoccupied by Romania's modern development, Haşdeu fought to support the authentic national values and criticized the tendencies to imitate and serve the western civilization. He believed that the past was the supreme argument for national specificity. Romania's progressive evolution was to reflect the specificity and the originality of the Romanian nationality, and in order to achieve this goal it was necessary to give the land to its owners, to create a powerful national industry, to introduce universal vote and national education.

"The great nationalist", as Mircea Eliade called him (Haşdeu, op.cit., p. XXXIX), had as his primary concern to state some state policy recommendations to insure the development of the Romanian economy, just as V. Slăvescu had noticed, in attempting to define Haşdeu's doctrinary orientation: " Haşdeu the nationalist influenced and determined Haşdeu the economist" (Slăvescu, 1943, p. 12). Opponent of the free trade theory and supporter of the protectionist doctrine thought out by List, Haşdeu aligned with Dionisie Pop Marțian's view and tried to adapt the theoretical and practical norms of protectionism to the specific interests of the Romanian economy of his times. Pointing out the flaws of „cosmopolitanism" which appeared naturally („just as climate brought about plague and locusts in Egypt") in federal states such as the USA and Switzerland (in which nationality did not exist), Bogdan Petriceicu Hașdeu gave France as an example, where the „death of the nationalist spirit" by adopting the cult of universality had bad outcomes. „Nationality is for a people what originality is for an individual" (Haşdeu, vol. II, op.cit., p. 123). He wrote that he considered nationalism a basic condition for novel ideas to immerge and for the peak of progress to be reached. Haşdeu harshly criticized free trade as being one of the causes of Romania's economic offset as it favored the interests of the more industrialized countries such as France or England.

3. Research methodology

In writing the paper, we have consulted a rich bibliography and we have synthesized the most relevant points of view regarding the major coordinates of Haşdeu's thinking. Based upon systematic research of the original editions of Haşdeu's writings, we have identified his most remarkable opinions on the fundamental problems of the Romanian economy. Syntopic reading has led us to an in-depth understanding of the solutions that Haşdeu thought of for the development of industry and agriculture in our country, which proves that he was a patriot and a economic nationalist.

4. The manufacturing industry – the key to insure Romania's economic independence

In 1866 Haşdeu published a paper titled „The National Industry. The Foreign Industry and the Jewish Industry as opposed to the Principle of Competition" in which he harshly criticized the theory of free trade: "Let us ask ourselves if it is possible to have free trade between a master and a slave, between an athlete and a pigmy, between a philosopher and an idiot, between a man and a boy, between a rich man and a poor man, between a man with a gun and a man with a stick, between one nation and another." (Slăvescu, op.cit. p. 62). From a national point of fiew, free trade clearly gives the advantage to the more developed nation while for the other nation it means "slavery".

Concerned with Romania's future, as a developed and independent nation, Haşdeu asked for a powerful national industry to be created. He was the adversary of the „pernicious doctrine of agricultural exclusivism" put forward by N. Șuțu, D. P. Martian and Ion Ionescu de la Brad. In his 1869 paper "Agriculture and Manufacture" he pointed out that the lack of a manufacturing industry in an agrarian country leads to despotism (the exploitation of the agrarian population), to the domination of the agrarian nation by the foreign countries, and especially to "extreme viciousness" because if there is nothing else besides agriculture there is no freedom, and the "growth of everything comes from freedom" (Slăvescu, op.cit., p. 73). From this point of view, Bogdan Petriceicu Hașdeu laid the foundation of his doctrine upon reviewing the main existing schools of economic thought. He distinguished two main schools or systems of economic thought, according to the subordination between two fundamental concepts – humanity and nationality:

- the Humanitarian School (classical liberalism represented by A. Smith and his followers)
- the National School (the historical school of the German economists led by F. List)

5. Bogdan Petriceicu Haşdeu's semi-Anti-Semitism

Bogdan Petriceicu Hașdeu started from the observation that most notorious economists (Smith, Quesnay, Sismondi, Turgot, Say, Malthus) were born and died poor and identified the exception to the rule: David Ricardo. And he offered an explanation: the Jewish origin of the famous economist! Through his statements, Haşdeu fully stated and supported his anti-Semitism. Though, Haşdeu's anti-Semitism has to be translated as a constitutive element of his nationalist convictions that he used to explain the evolution and historical role of the Jewish population in Romania. In his 1868 paper titled *Istoria toleranţei religioase în România* (The History of Religious Tolerance in Romania) Haşdeu made an analysis of the Jewish presence in Romania throughout history and emphasized a fundamental historical truth: Romanians have always had a tolerant attitude towards the Jews (Pecican, 2004, p. 119, p. 199). He did not propose the extermination of the Jews, but rather an equal treatment for them and for the rest of the „foreigners". This is the key of his stance: he did not hate the Jew but rather their economic "habits" as a character included in the archetype of the "foreigner" who harms the country.

In his opinion, the Jews had three negative traits (Slăvescu, op.cit., p.. 65-67):

The first one – the tendency to earn without working, since the Jews traded mainly with money and in shops. Since the Jews did not work and did not produce anything, the consequence was depicted by Haşdeu in a somber picture: „In the foreground, the numerous ones, the lazy ones. The lazy ones, the rich ones. The rich ones, the Jews. In the background: the few, the industrious. The industrious, the poor. The poor, the nation."

The second one – the lack of shame and consequently the lack of dignity. Thus, they ended up getting rich quickly and easily, especially thought "fraud in everything", through "usury smuggling, prostitution", through "bankruptcy, espionage, bribery".

The third one – the hate for the other peoples, since the Jews acted as members of "an association of mutual aid against all the other people".

Bogdan Petriceicu Hașdeu was aware of the critical need for domestic capital in order to create a national industry, so that he constantly insisted upon the state's strong intervention to insure the development of the Romanian industry. In his 1870 article *Ocnele în România* (Salt Mines in Romania) he asked for the development of the extraction industry to be supported indirectly, presently and efficiently at the same time. Since European countries already had a protectionist attitude towards the importation of Romanian salt, Haşdeu suggested creating a domestic fish and meat salt preservation industry. The country's potential profits could have greatly increased as a result of exporting salt-preserved produces since „ the difference in profit between a live cow and the identical quantity of preserved beef was similar to the difference between the raw material and the manufactured goods" (Slăvescu, op.cit., p. 129). Through his rationale in terms of economic efficiency of exportations, Haşdeu brilliantly prefigured Mihail Manoilescu. Even if Romania had abundant raw materials (salt mines, rivers, pastures), two more things were needed: "sounder minds instead of showmen and Romanian politics instead of cosmopolitanism…" (Slăvescu, op.cit., p 130).

6. A sui generis land reform

In his economic writings, Bogdan Petriceicu Hașdeu did not neglect agriculture as the main branch of the Romanian economy. Against the conflict between the conservative boyars and the progressist liberal forces, he published the study titled *Mosiile statului* (The Domains of the State) in 1871, in which he established solutions to the two great problems of the peasantry: the lack of land and the low standard of living.

As far as the first problem was concerned, Haşdeu suggested leasing the land of the state through *emphyteusis* , which was "leasing a piece of land for a long period of time, up to 99 years, during which the tenant, called embatic, obtained full ownership of the land" (Constantinescu, 1974, p. 297). Even though it implied an advantageous lease payment for the peasant-the lease was to be paid fully after the first 20 years, half or a third of it upon the signing of the contract and the rest over the remaining 19 years (Slăvescu,op.cit., p. 143) -emphyteusis did not fundamentally solve the problem as it did not mean a reduction of the lease that was usually paid. The advantages

were only psychological ("having no illusions, he could not suffer from disillusions" (Slăvescu, op. cit., p. 142). The peasant did not recall every year that he was not a mere tenant, but a landowner. (Constantinescu, 1968, p. 371).

As far as the second problem was concerned, the improvement of the peasantry's living standard, Haşdeu put forth the idea that the state should instate on its land "model farms" and "model villages" that were to insure economic conditions (credit, communications, irrigations), intellectual conditions (education, religion, military service) and hygienic conditions (housing, clothing, food, hospitals) meant to upgrade the peasant's material and moral status.

7. Conclusions

Bogdan Petriceicu Haşdeu was a patriot and a democrat, and he loved his people and he loved freedom. He did not stop at stating and scientifically supporting his economic and social ideas, he also presented a program to reform the Romanian society as a whole, which can be resumed in 8 points (Haşdeu, op. cit., vol. I, p. LXVI-LXVII):

1. Good governing ("ministry and administrative responsibility")
2. Arming the country
3. Education
4. Proper budget policy ("rigorous financial control")
5. Standing against the "Jewish invasion"
6. Fighting against the interference of foreigners in the country's affairs (nationalism and "Romanianism")
7. Freedom of speech and universal vote
8. Opposition to the "boyars' tendencies

Bogdan Petriceicu Haşdeu's writings have an important place in our economic literature and they distinguish themselves through cohesion and clarity, while the solid arguments for the author's beliefs rest upon the rich information and the exact knowledge of the doctrinaire corpus of the well established foreign economists. The main coordinate in Haşdeu's economic thought was the study of the Romanian economic realities, mainly its economic independence. His greatest merit was probably the fact that he explicitly stated the need to develop a domestic industry *avant la lettre* and against the dominant concepts of those times. Bogdan Petriceicu Haşdeu is a rare example of a scholar who studied economic life from a multi-disciplinary perspective. The passing of time has validated his economic ideas and he remains "one of the most amazing geniuses that the Romanian people has produced" (Haşdeu, vol. I, op.cit., p. LXXX):

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Petru Sebeşanu Aurelian – The First Economist of the Romanian Academy

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Abstract

Petru Sebeşanu Aurelian was born in Slatina on December 13, 1833 and he died in Bucharest on January 24, 1909. He is one of the most prominent people in the 19th century Romania. Agricultural engineer, politician, and one of the greatest Romanian economists, Petru Sebeşanu Aurelian was a strong supporter of Romania's progress and independence, both in practice, through his professional and political activity, and in theory, through the ideas he put across in his writings. Petru Sebeşanu Aurelian was an advocate of mercantilism and economic nationalism. He was especially concerned with the possible ways to reduce the economic gap between Romania and the more developed countries and considered that Romania's economy had to rely upon agriculture, and yet not neglect industry. In this paper we will try to identify the main coordinates of the paradigm within which Aurelian laid down the solutions for Romanian's modernization in his times.

Key words: protectionism, nationalism, industry, progressist agriculture
J.E.L. classification: B31

1. Introduction

Petru Sebeşanu Aurelian attended primary school in his native town, Slatina, and then went to Bucharest to attend *Sf. Sava National College*. The year he graduated was the 175th anniversary of that prestigious education institution. After that, he became the curator of the college library, received a scholarship from the Ministry of Education to specialize in agricultural science and went to study at the Ecole Imperiale d'Agriculture (nowadays AgroParis Tech) in Grignon. Upon returning, he dedicated his time to publishing papers (in magazines such as *Monitorul*, *Agronomia*, *Monitorul comunelor*, *Revista Ştiinţifică*, *Economia Naţională*, *Economia rurală*) and to teaching (at the School for Agriculture in Pantelimon, at the School of Herăstrău).

P. S. Aurelian was the first economist to become a member of the Romanian Academy in 1871, at the age of 38, and then its president at the age of 41, in 1901. He strove to put his economic ideas into practice as a Minister of Public Works (1877 and 1887), as a Minister of Cults and Public Education (1882), as a Minister of Internal Affairs (1901), as a Minister of State Domains (1902), as the president of the Council of Ministers (1896) and as a member of Parliament belonging to the Liberal Party within which he built his own group titled "flagist" or "the liberal left" (which also included Barbu Ștefănescu-Delavrancea, V. A. Urechia, A. D. Xenopol, Petre Grădișteanu, Vasile Lascăr and many more). The group's major pursuit was to introduce the reforms that were necessary for the Romanian society on its way to progress, especially by attracting the youth to the economic field. A good example in this respect was the 1897 initiative to create a bank, the Romanian General Bank, (P. S. Aurelian himself was the chairman of the Board of Directors) that was to provide the Romanian bourgeoisie with capital.

2. Theoretical background

Petru Sebeşanu Aurelian looked into the political situation of the country and believed that only through science would Romania be able to reach the level of the developed countries and that education had the decisive role in putting the outcome of scientific research into practice: "The purpose of ideas, of the most useful, most practical ones, is to be in latent waiting until a vigorous impulse forces them to become reality" (Aurelian, 1967, p. 26). Petru Sebeşanu Aurelian understood the importance of studying political economy in high schools. He understood that building an individual practical economic culture was essential for the progress and the development of any nation: "The teachings of a nation must tally with its needs and aspirations; the needs and aspirations of the Romanian people, both economic and national, call for their children to know how the economic development of a people grows, and this knowledge comes from studying political economy" (Aurelian, op.cit., p.22).

In the following two decades, Petru Sebeşanu Aurelian was self-consistent in his scientific research and published a workbook titled *Elemente de economie politică* (Elements of Political Economy) in 1889. In the foreword, Petru Sebeşanu Aurelian pointed out the fact that the citizen's lack of economic training had negative consequences upon the individual (it affected the citizen's own interests) and upon the whole society (it prevented vital problems of the national community from being properly solved) (Murgescu, op.cit., p. 231)

He distinguished himself through important attempts to make political economy popular and materialized them in his paper *Catehismul economiei politice. Cu adăogire de ştiinţa bătrânului Richard după Benjamin Franklin* (The Catechism of Political Economy. With comments on Benjamin Franklin's Poor Richard's Almanac) published in 1869. Costin Murgescu considered that the work lacked in scientific value, yet he emphasized the importance of its publishing "in an era in which many voices – some belonging to prestigious personalities in the country's cultural and political arena – denied the scientific value of political economy and tried to prevent it from being taught" (Murgescu, 1994, p. 230-231).

With respect to the mentioning of the famous American scientist and politician, Benjamin Franklin in the title of the paper, we can say that Petru Sebeşanu Aurelian positioned himself in the so-called "franklinian moment" mentioned by Gh. Zane in his posthumous paper *Despre regulile unei bune conduite în viaţa economică* (On the Rules of Good Conduct in the Economic Life). The Romanian intellectuals who were active in the first half of the 19th century published translations and comments on Franklin's writings which combined the principles of political economy with the principles of ethics and morality with scientific and literary virtuosity (Ionescu, 1994, pag. 155).

As a minister, P. S. Aurelian took part in organizing competitions, exhibitions and national and international fairs. Also, he published a series of three economic monographies: *Notice sur la Roumanie, prinipalement au point de vue de son economie rurale, industrielle et commerciale, avec une carte de la Principaute de Roumanie* (Notice on Romania, especially from the point of view of its rural, industrial and commercial economy, with a card of the Romanian Principality (together with Al. Odobescu, in 1867), *Terra nostra. Schiţe economice asupra României* (Our country. Economic sketches on Romania) (in 1875) and *Bucovina. Descriere economică însoţită de o hartă* (Bukovina. Economic description accompanied by a map) (in 1876).

3. Research methodology

In writing the paper, we have used the documentary method and we have consulted the most relevant writings of the great Romanian economist and the writings of various authors who have expressed their opinion on the scientific value of his ideas. The systematic research we have undertaken has guided us into extracting Petru Sebeşanu Aurelian's mind map on topics such as mercantilism, protectionism, economic nationalism and his solutions to modernize Romania and reduce the gap between our country and the developed countries by relying especially on agriculture but also on industry.

4. The Modernization of Agriculture: "Progressist Agriculture"

An agricultural engineer, P. S. Aurelian placed the agrarian reform at the forefront of the economic and social issues, as he believed that "our future depended on our agricultural reorganization" (Aurelian, op.cit., p. 8). Thus, "the first thing we have to do is to boldly follow the true path of progressist agriculture, the path of agricultural improvement" (Aurelian, op.cit., p. 91) Being preoccupied by the fate of the peasantry, P. S. Aurelian wanted the freedom of the peasants from the feudal servitude, their becoming owners of the land and the support of the peasants' households by the state. He rejected the system of agricultural agreements as it was enslaving for the peasants, as well as the peasants' insufficient ownership of the land. Modernizing agriculture meant a radical reform of the situation of the Romanian peasant through:

- abolishing all duties that prevented the peasant from going forward;
- a certain combination to give the peasant a piece of land;
- the government's easing of the means for the peasant to improve his intellectual, moral and material status. (Aurelian, op.cit., p. 6)

The progress of agriculture was possible only in the contest of the landowners' direct use of the land, which automatically meant giving ownership to the peasants. Tackling the issue from an economic perspective, P. S. Aurelian phrased two conditions for efficiently exploiting the land:

- The owner of the land had to be present / to live there;
- The owner of the land had to have proper specialized knowledge as well as sufficient capital.

From a political point of view, history has proven that land ownership by the peasants has positive effects: on the one hand, the owners protect their land in difficult time, and on the other hand, they are less tempted to immigrate. The subtlety of the ideas presented by this Romanian economist, who also provided historical examples to support them, is valid even when we superimpose it to the situation we are currently having in Romania nowadays, when a great deal of the population immigrated either because of reasons mentioned by P. S. Aurelian, or because there were no well paid jobs in other branches of the Romanian economy (or even because there were no other branches of the national economy).

The importance of agriculture springs from the status of the Romanian economy: "Nowadays three quarters of the country's population works in agriculture. Our foreign trade is supplied by agricultural produces. The country's finances come mostly from the peasants. Our armed forces are mostly made up of the peasants' children" (Aurelian, op.cit., p. 152)

As far as the size of the agricultural holding is concerned, P. S. Aurelian believed that middle sized and large farms needed to be predominant. In his paper Terra nostra he emphasized the importance of irrigations and of fertilizers in order to increase the efficiency of the agricultural activity. He also emphasized the need to breed cattle, to improve the livestock, to grow technical/industrial plants, to keep bees.

The essence of the agricultural revolution envisaged by P. S. Aurelian meant changing the production relations within the agricultural activity, through a capitalist transformation of the relationships between land owners, tenant farmers and peasants. In his 1881 article *Reformarea legii pentru tocmeli agricole* (Reforming the law for agricultural agreements), P. S. Aurelian showed that, even though tithe and corvee had been abolished, the 1864 laws were deeply unfavorable to peasants and led to their impoverishment: the peasant who had become land owner could be legally forced to work for the boyar and if he refused to do so according to the agreement (and most often he was illiterate and was not aware of the terms of the agreement) workers could be employed to work in his place. Unfortunately, his proposals to reform the law (contracts should be signed for a year maximum, only the owner of the land should be able to sign contracts with the peasants who live on his land, the periods for peasants to work in should be clearly stated) were ignored, especially since P. S. Aurelian rejected the very term of agricultural agreement that he considered to be ambiguous.

5. P. S. Aurelian's Liberalism

Supporter of economic nationalism and promoter of the country's industrialization, P. S. Aurelian adhered to the doctrine of Friedrich List, the father of German protectionism, signing the foreword of I. N. Papiniu's translation into Romanian of his work *Sistemul national de economie politică* (The National System of Political Economy). Aurelian's economic view had common points with the writings of Saint-Simon, Carey, Bastiat and even Rousseau.

His view on population makes P. S. Aurelian a genuine mercantilist: "a large, sinewy population that live well is the main factor of a country's prosperity" (Aurelian, op.cit., p. 124-125). When discussing the population issue, Aurelian meant not only its quantity (he agreed with Rousseau who had claimed that a numerically insufficient population was a major problem in any country), but also its standard of living.

He supported the introduction of protectionism in foreign trade and the creation of a national industry. He held that giving up the free trade policy was the only way to insure Romania's economic independence as a sine qua non condition to consolidate its political independence. He denounced the effects of the 1876 commercial convention with Austria and Hungary, given that Austria had not recognized Romania's autonomy in 1873 when it had asked our country to organize and share a common stand with Turkey at the Universal Exhibition in Vienna – the Austrian International Exposition. His position regarding the signing of this convention is the proof of his patriotism which characterizes most of his writings: when a country is in the position of signing a commercial treaty with an experienced country which has been encouraging its national production and thus has created a thriving industry, then the respective country must "think again and again since any rush can be fatal".

The Romanian economist presented the country's possibilities for industrial development in his 1881 paper titled *Cum se poate fonda industria în România şi industria română faţă cu libertatea comerţului de importaţiune* (How Industry in Romania Can Be Founded and How It Can Relate to the Freedom of Imports). The practical ways to support the development of the industry were analyzed in his papers. In *Politica noastră comercială faţă cu convenţiile de comerţ* (Our Commercial Policy in Relation with Trade Conventions), a paper published in 1885 the author suggested replacing bilateral commercial treaties with a customs system opposing all partner countries, which could insure the country's economic independence. Other papers were published in 1890 – *Politica noastră vamală* (Our Customs Policy) and *Viitorul nostru economic* (Our Economic Future).

He was against leasing the exploitation of the country's natural resources to foreign monopolies: „We, the current generation, have no right to dry all the country's sources of wealth because, God help us, Romania will not live only as long as we live"(Aurelian, op.cit., p. 52).

P. S. Aurelian supported the need to develop the small and the large national industry according to the long term interests of any country. He used as examples the USA, a country that supported the silk manufactories, and England, a country that supported the sugar industry. As far as England was concerned, it was a supporter of the free trade. In Aurelian's view supporting free trade led to economic subjugation which was similar to the use of the sword in conquering territories. His qualities as an objective theorist and a fine observer of the economic realities made him say without being wrong that „ the English have always had the most protective legislation for their national industry and they invoke the freedom of trade only when they are convinced that others can no longer compete with them" (Aurelian, op.cit., p..61).

Knowing the Romanian economic reality quite well, P. S. Aurelian believed that the first industries to be developed were those that were dependent on the raw materials that were available in the country (sugar, paper, silk).

6. Conclusions

The greatest merit of P. S. Aurelian's economic thought is that at its core there is the concept of a country and of the protection of the country's interests. The essential imperatives of his economic thought were the interdependence between economic and political independence, the selection of the means of development for the national productive forces in the context of taking

certain protection measures against the interests of the foreign capital, and the harmonization of class interests (of the industrial bourgeoisie) and the country's interests.

In his opinion, the state was to create the general framework for the individual initiative to manifest itself and to issue a long term general economic program to target the economic development of the country. This program or plan was to include two distinct parts (the consolidation of already existing branches and the creation of new ones, such as mining, breeding cattle and fertilizing the land, and had to start by setting priorities: agriculture had to be the foundation of the economic structure while the creation of a national industry had to be the first major objective.

Another essential contribution of P. S. Aurelian's was his unceasing effort to make political economy popular, which determined Henri H. Stahl to consider him a herald of 'Haretism' as a movement to bring culture to the masses (Stahl, 2001, p. 160-161). As the liberal I. C. Brătianu said, „ P. S. Aurelian's name will forever be connected to our economic rebirth. He was the one to lay down the foundations of our agricultural education and fully contribute to the organization of our entire national economy. (…) His activity was driven by two big ideas – a sincere democracy and a warm nationalism!" (Malinschi, 1990, p. 50).

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Financing of Rural Entrepreneurship through Sub-measure 6.4. of the National Programme for Rural Development 2014-2020

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Abstract

In the context of a predominantly subsistence agricultural activity in the Romanian rural area, the National Programme for Rural Development 2014-2020 allocated financial resources for the development of non-agricultural activities in order to diversify the activities and stimulate employment in the rural area, as a measure of development of this space. The paper analyzes the approved projects for this objective, highlighting and analyzing some specific indicators, formulating conclusions and recommendations for future allocations..

Key words: rural entrepreneurship, EU funds, rural development
J.E.L. classification: F36, F63, O19, P25

1. Introduction

Romania suffered structural changes after 1989 and rural activities and population were affected by these changes. Some of the most important changes that affected Romanian rural areas were the liquidation of the state agricultural cooperatives, changes in the property rights regarding the land, privatisation and, in some cases, liquidation of industrial or of services firms from rural areas, but also from urban areas (where important parts of rural population was working before 1990). As a result, part of the population from rural areas needed to find alternatives for working and living. Some of the most used solutions were the subsistence agriculture or migration, that affected the occupation structure of the population living in the rural areas.

All these changes impacted on the population of the rural areas in Romania. The resident population in the rural areas of Romania is going older (the mean age in 2019 becoming 42.3 compared with 41.1 in 2012) and have a descending number of persons (5581732 persons in 1996 compared with 3896749 persons in 2019).

As regarding the professional status of the working population from rural areas, in the last years we observe an increase of the persons employed and entrepreneurs, but in the same time a decrease of the persons who work in the family, unpaid, and of the persons self-employed.

Table no. 1. The professional status of the working population from rural areas in Romania

	2014	2015	2016	2017	2018	2019
Total	3944999	3872894	3764537	3901819	3919819	3896749
Employee	1554374	1782205	1886525	2003919	2063985	2114207
Owners	21145	26958	26826	27556	28028	31727
Self-employed	1405427	1291366	1174716	1208356	1179213	1131574
Non-paid family worker	964052	772364	676470	661988	648592	618318
Member of an agricultural cooperative	No data	No data	No data	No data	No data	923

Source: National Institute of Statistics of Romania (http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table)

It can be observed from data in the table no. 1 that the weight of the owners in the working population in the rural areas is relatively insignificant (about 0,5% in 2014, about 0,8% in 2019).

Regarding the domains in which resident population of rural areas activate, we could highlight that population that work in agriculture decrease (as percentage) from 58,60% in 2014 to 43,20% in 2019.

Table no. 2. Domains of work for resident population of rural areas in Romania (%)

	2014	**2015**	**2016**	**2017**	**2018**	**2019**
Agriculture, forestry and fishing	58,60	51,72	47,33	45,87	44,97	43,20
Manufacturing	12,32	14,17	15,65	16,51	16,56	16,17
Constructions	6,42	7,16	8,40	8,79	8,70	9,53
Wholesale and retail trade; repair of motor vehicles and motorcycles	6,46	7,51	8,23	8,78	8,99	9,31
Transportation and storage	3,09	3,78	4,05	3,92	4,11	4,60
Hotels si restaurants	1,06	1,10	1,37	1,52	1,69	1,67
Other areas of activity	12,06	14,55	14,97	14,60	14,98	15,52

Source: author's processing after data from National Institute of Statistics of Romania (http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table)

Analyzing the evolution of the activities in which are involved people from rural areas, we emphasize that all the other important domains (excepting agriculture) of work in rural areas (manufacturing; construction; wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; hotels si restaurants) registered slight increases in their importance in the rural economy.

This evolutions could be the result of the way in which Common agricultural policy (CAP) was designated. An important part of the funds coming through CAP were allocated to agricultural activities to enhance the farms productivity, to stimulate obtaining better equipment, to stimulate cooperation or to attract qualified working persons. But CAP allocate a part of the funds for rural development, trying to stimulate not just agricultural activities, but also the non-agricultural ones. By this, EU try to fund the small non-agricultural businesses that exist in the rural areas and that, because of the small local market, generally do not have enough own resourses to resist for a long period, but also to generate new businesses related or not by the agriculture by assuring funds necessary to obtain modern equipment, to atract and mantain qualified persons, to generate a bigger market through the acces to internet.

The Government, faced with the industrial reconversion, allocated little financial resources for rural areas, so the european funds for non-agricultural activities in the rural areas represented a major impulse for the entrepreneurs in this area from all domains: production, services, human or veterinary medical assistance, tourism. Entrepreneurs tried to acces funds for these destinations starting with the pre-adheration funds, and every call of projects for non-agricultural destinations in rural areas was exhausted from the first days.

In the paper we analyze some of the results of the financing through sub-measure 6.4. "Support for investments in the creation and development of non-agricultural activities" of the National Programme for Rural Development 2014-2020 by showing the number and values of the applications selected to be financed detailed by region of developments and session of the calls, the type of applicants and for a thorough analysis we use Region 7 "Centru" to show the main destinations of the funds.

2. Theoretical background

The paper relates to two strands of literature: one of them is the literature focusing on the importance and characteristics of entrepreneurship in rural areas and the other that analyse the contribution of the EU funds in stimulating entrepreneurial activities in the member countries.

The first strand of literature suggest that entrepreneurship could be a key to stimulate rural development (Paul and Sharma, 2013) and to reduce poverty (Si et al., 2019). The enterprises developed in the rural areas generate more employment opportunities for that areas, they use the local natural resources to produce different goods or to offer services, could attract for short-period persons for sport or leisure in the area (Klofsten et al.,2019, Kitchen and Marsden, 2009), all of these generating local development. In the European context, as Stathopolou et al (2004) highlight, the reforms of the common agricultural policy affect the rural areas in an unequal measure, and for areas that will suffer significant adjustment processes the need for economic diversification is stronger. Ulman and Dobay (2020) suggest in a study on Romania that policies that stimulate entrepreneurship could affect in a positive way the rural areas problems, even the poverty.But in the process of starting and developing enterprises in rural areas, there are some specificities that have to be addressed. From the study cases presented by Klofsten et al (2019), but also from that of Renski (2008) some ideas about rural entrepreneurship could be found: rural firms in the metropolitan areas are in a better situation than those in nonmetropolitan areas; for the enterprises in the rural nonmetropolitan areas the remoteness seems to be one of the most important barriers. The remoteness generates more efforts to attract and to maintain qualified persons, affecting also the types of businesses that could be developed in these areas. As Klofsten et al (2019) noted, rural SMEs need for their development "to access available knowledge and skills". Also, size of the firms in rural areas tend to be smaller than those in the metropolitan areas, excluding by this some economic activities from activating in rural nonmetropolitan areas. These characteristics affect the domains in which the enterprises in the rural areas could be created and developed.

The second strand of literature highlight the importance of EU funds for entrepreneurship development in rural areas, and our main focus is on the literature analyzing Romanian case, not excluding other countries situations that could generate viable ideas also for Romania. Satola and Bogusz (2016) analyze the importance of EU funds for the development of the entrepreneurship in Malokopskie Provine from Poland. Their analysis regards the newly enterprises created in the region in the period 2007-2013 (which is the same with the EU funds programming period) and suggest that some of the main factors that affect the establishing of an enterprise in a rural area are human capital and the economic potential of the area. By analyzing the two measures for entrepreneurship funded by EU funds for agriculture ("differentiation towards non-agricultural activities" and "establishment and development of microenterprises"), they show that the interest was bigger in the second measure as a result of a higher interest awarded by the persons in the analyzed region for non-agricultural activities and highlight that a rural area which is near a municipality register higher levels of entrepreneurship and higher number of applications for entrepreneurship matters.

Kurdyś-Kujawskaand and Sompolska-Rzechuła (2020) analyze the subsidies awarded in Poland through EU funds for rural development for entrepreneurship reasons both in the 2007-2013 and 2014-2020 periods. Their results show that the agrarian structure and the level of socio-economic development of farms have an important impact on the types of the activities that were financed: small farms and self-employment activities outside agriculture for the regions with fragmented agrarian structure and low level of development, payments for young farmers and the development of agricultural services in regions that have a more favourable framework for agriculture.

Dan and Popescu (2017) analyze funding of entrepreneurship in Romania in the same period as Satola and Bogusz (2016). They analyzed also the two measures addressed for rural entrepreneurs ("support for business creation and development" and "encouragement of tourism activities") and concludes that the measures realized just partially their objectives, even that a significant number of contract were signed. Dan and Popescu (2017) suggest that the quality of projects was not very good in many cases and problems that appeared during the implementation period (bureaucracy, procurement process complexity and the poor forecasts from the business plans) generated a high rate of project cancellation.

Sima (2015) advocate for a more non-agricultural structure of the rural economy and for this suggest that not only the EU measures addressed to the rural entrepreneurship are needed, but also specific measures of the banking system (because of the main problem is the lack of access to finance for many rural SMEs) and of the Government (for creating the framework necessary to a better economic activity of SMEs in rural areas – measures for a better physical infrastructure, for a better education in the colleges for agricultural matters, for assuring consultancy in specific aspects, etc.).

Puie (2020) analyze the complementarity of EU funds for stimulating rural entrepreneurship and concludes that for attaining the established goals it is needed a coherent national strategy that have to integrate the various funds that could be used.

Smarandache (2020) analyze the importance of EU funds for development of rural tourism in Gorj county, tourism being considered one of the main areas that could be developed in the rural areas. The author highlight the importance of the EU funds in financing the touristic domain in the Gorj county, showing that 62% of the new investments and more than 50% of the total rural touristic infrastructure were financed through EU funds, these funds generating in this way development.

3. Research methodology

Our paper highlight, through literature review, the characteristics and importance of rural entrepreneuship and the significance of EU funds for stimulating rural activities, and realize a quantitative analysis regarding the approved projects for rural non-agricultural activities that were financed by sub-measure 6.4. of the National Plan for Rural Development 2014-2020.

The indicators used for the analysis the total number and public value of the approved projects, detailed by regions of development, call-sessions and types of applicants, and in the thorough analysis regarding the approved projects in the Development region 7 „Centru" we used the total number and public value of the approved projects detailed by destinations of the projects, session calls and counties.

The data used are public and come from the Agency of Financing Rural Investments in Romania and from the National Institute of Statistics of Romania.

4. Findings

Sub-measure 6.4. of NPRD 2014-2020 was designed to support the investments for creating or development of non-agricultural activities in the rural areas realized by micro-enterprises or SMEs. According to the applicant guide of this measure, the beneficiaries of this measure could be either existing micro-enterprises or SMEs in the rural areas or new micro-enterprises or SMEs that prove the co-financing, for creating a non-agricultural activity or for diversifying its agricultural activity through non-agricultural activities in the same micro-enterprise or SME. According to the same guide, the maximum value of the non-reimbursable support for a beneficiar is 200000 euros and will cover atmost 90% of the total cost of the project. The domains that are financed through measure 6.4. are relatively large (according to annex 8 of the applicant guide) and construction of the building, endowment, modernization or expansion of the locations could be financed, but not the purchase of the land or the building, nor any kind of vehicle (with the exception of specialized wehicles, like veterinary or human ambulance, garbage truck and so on). But for some of the domains (including hotels and restaurants; scientific, profesional or technical activities; cultural, show or recreative activites) just endowment of the locations could be financed, and not the building construction, modernization or expansion. In the selection process, even if the criteria were the same, the weight of the criteria differed from session to session because of the decision of the implementing authority to stimulate different domains.

Based on public data available on the Agency for Financing Rural Investments, we analyze the data regarding the selected projects after the calls that were registered in the 2015-2017 period.

Table no. 3. Projects approved for sub-measure 6.4. of NPRD 2014-2020

	2015		2016		2017		Total	
Reg. of developm.	**No projects**	**Public value (euro)**	**No of projects**	**Public value (euro)**	**No of projects**	**Public value (euro)**	**No of projects**	**Public value (euro)**
1 - North-East	38	6.478.022	52	8.953.385	33	5.579.707	123	21.011.114
2 – South-East	25	4.076.709	39	6.801.162	12	1.726.049	76	12.603.920
3 – South „Muntenia"	17	2.300.220	39	6.484.778	11	1.766.298	67	10.551.296
4 – South West „Oltenia"	20	2.870.648	50	8.912.355	30	4.804.993	100	16.587.996
5 – West	11	1.706.894	37	5.851.771	40	5.591.048	88	13.149.713
6 – North West	53	7.711.797	109	19.416.130	67	11.020.923	229	38.148.850
7 - Center	33	4.374.602	47	7.904.697	22	3.870.075	102	16.149.374
8 – Bucharest and Ilfov	10	1.558.763	16	2.562.721	5	647.629	31	4.769.113
TOTAL	**207**	**31.077.655**	**389**	**66.886.999**	**220**	**35.006.722**	**816**	**132.971.376**

Source: author's processing after data from Agency for Financing Rural Investments (https://www.afir.info/)

Analyzing data from table no 3 we observe an uneven distribution of the number of projects and of the public values for different years and for different regions of development. In the first year just 207 projects were selected to be financed with a total value of 31.077.655 euros, but in the next year about a double number of projects were financed (389 projects of a value of 66886999 euros). In the last year the rest of the allocation for measure 6.4. was designed to be awarded for 220 projects with a total public value of 35.006.722 euros. Regarding the geographica distribution of the projects, we highlight that North-West region attracted most of the funds and registered the higher number of projects approved in all of the three years, followed by North-East region. By comparing South-West „Oltenia" region with „Centru" region we could observe that the number of the projects approved are relatively similar (102 projects – Centru region, 100 projects - South-West „Oltenia" region), but the total funds approved for projects in South-West „Oltenia" region is higher, an explanation being that the average value of a project in South-West „Oltenia" region is higher that that in „Centru" region. On the other hand, the regions with small number of projects (and values) are Bucharest-Ilfov (where is an intensive urbanization, the rural area being small), South-East and South „Muntenia" with about one third each from the North-West region.

Table no.4. Financial resources approved in different session calls through sub-measure 6.4. of NPRD 2014-2020

Region of development/year	**2015**	**2016**	**2017**
1 - North-East	170474,2632	172180,5	169082
2 – South-East	163068,36	174388,8	143837,4
3 – South „Muntenia"	135307,0588	166276,4	160572,5
4 – South West „Oltenia"	143532,4	178247,1	160166,4
5 – West	155172,1818	158156	139776,2
6 – North West	145505,6038	178129,6	164491,4
7 - Center	132563,697	168185	175912,5
8 – Bucharest and Ilfov	155876,3	160170,1	129525,8
TOTAL	**150133,599**	**171946**	**159121,5**

Source: author's processing after data from Agency for Financing Rural Investments (https://www.afir.info/)

Even though South-East region have 76 projects comparing with 88 for West region, the total public value of the projects is just a little smaller, especially because in the first two years the average value of a project is relatively higher. Analyzing data from table no. 4 we could observe that this average value is variable in years and for regions and an explanation for this could be the domains financed predominantly in the region.

Data from table no. 5 show that most of the funds were obtained by limited companies (71,69% of the total projects and 70,04% of the total funds), and also authorized persons and individual enterprises are important applicants.

Table no.5. Type of applicants for approved projects (sub-measure 6.4. of NPRD 2014-2020)

	2015		2016		2017		Total	
Applicant type	No of projects	Public value (euro)	No of projects	Public value (euro)	No of projects	Public value (euro)	No of projects	Public value(euro)
Limited company	165	24.877.163	301	50.423.337	119	17.841.015	585	93.141.515
Authorized person	10	2.129.631	43	7.961.643	48	8.364.994	101	18.456.268
Individual enterprise	18	2.980.143	41	7.754.476	49	8.272.199	108	19.006.818
Family enterprise	2	307.529	3	596.572	4	528.514	9	1.432.615
individual veterinary medical office	4	227.048	1	150.971	0	0	5	378.019
human medical office	8	556.141	0	0	0	0	8	556.141
Total	**207**	**31.077.655**	**389**	**66.886.999**	**220**	**35.006.722**	**816**	**132.971.376**

Source: author's processing after data from Agency for Financing Rural Investments (https://www.afir.info/)

One explanation of this structure of applicants could be the fact that, by applicant guide and the evaluation score, were favored companies or entrepreneurs that exist of at least 3 years and demonstrate the capacity to assure the co-financing, conditions that are more easily satisfied by the companies than individual persons.

For a detailed analysis we consider the situation of the approved projects from "Centru" region. This analysis permits us to make some additional remarks regarding the sub-measure 6.4. of NPDR 2014-2020.

Table no.6. Domains of the approved projects for sub-measure 6.4. of NPRD 2014-2020 in Region 7 „Centru"

Region 7 „Centru"								
Domains	**2015**		**2016**		**2017**		**Total**	
	No of projects	Public value (euro)	No of projects	Public value (euro)	No of projects	Public value (euro)	No of projects	Public value (euro)
production	17	2227473	6	770654	0	0	23	2998127
Rural guest houses	6	958284	26	5064224	4	793457	36	6815965
Information technology	2	190132	0	0	1	166698	3	356830
services	2	183277	4	620474	11	1839920	17	2643671
Veterinary medicine	2	176460	3	213495	0	0	5	389955
General medicine	0	0	1	174069	1	155727	2	329796
dentistry	2	346669	2	217144	0	0	4	563813
Dermatology	1	158449	0	0	0	0	1	158449
Leisure	1	133858	5	844637	5	914273	11	1892768
Total	33	4374602	47	7904697	22	3870075	102	16.149.374

Source: author's processing after data from Agency for Financing Rural Investments (https://www.afir.info/)

Analyzing data from table no. 6, we observe that the highest proportion of the funds were allocated for rural guest houses (44,61% of the funds, more than 52% by summing up also the leisure activites), which is a result of the prioritization policy of the management agency. This prioritization was done because agro-tourism was considered with high growth potential, but even if the investments are made in regions with high touristic potential or in eco-touristic destinations they will not generate the expected results in case that the administrative units do not benefit from investments to assure public utilities, qualitative public alimentation services, public transportation.

By analyzing the distribution of the approved projects for rural guest houses between the counties, we observe that most of the projects belong to entrepreneurs in 2 counties: Harghita and Alba.

Table no.7. Destinations of the approved projects for sub-measure 6.4. of NPRD 2014-2020 in Region 7 „Centru"

County / Destination of the public aid	Rural guest houses		Other destinations		Total	
	No of projects	Public value (euro)	No of projects	Public value (euro)	No of projects	Public value (euro)
Alba	11	2026109	13	2086579	24	4112688
Sibiu	4	787213	5	695337	9	1482550
Brasov	4	779960	5	789110	9	1569070
Mures	1	188139	16	2221250	17	2409389
Covasna	2	347605	6	591962	8	939567
Harghita	14	2686939	21	2949171	35	5636110
Total	**36**	**6815965**	**66**	**9333409**	**102**	**16149374**

Source: author's processing after data from Agency for Financing Rural Investments (https://www.afir.info/)

We note that counties which are most developed from the region (Braşov and Sibiu) have registered, as well as Covasna county, smaller number of projects.

Analzying the characteristics of the measure 6.4., we also note that by the same prioritization strategy mentioned before were favored existing companies in spite of new companies, but this has an important negative aspect: do not sustain the remedy of a major problem of the rural area – attracting the young persons in the rural areas for other activities than the agriculture. Even if there is a separate measure (measure 6.2.) dedicated to new activities, because the values that could be allocated through that measure are smaller (50000-70000 euros) the beneficiaries of this measure have a low impact on the rural areas, generally offer jobs just for the benefiary and his family and generate value added after a long period.

So this prioritization have to be included into a more general strategy to stimulate small businesses from different domains, to stimulate the production and small businesses of services in order to grow the purchasing power of the people living in that communities, to maintain the labor force and to assure the durable development of the community.

5. Conclusions

In our opinion, after analysing the approved projects for sub-measure 6.4. of the NPRD 2014-2020, financing from NPDR must be corelated with other sources of financing (from other types of European funds) based on an integrative strategy addressed for all EU funds. Regarding the non-agricultural activities in rural areas, these are in most of the cases dependent on the existence of public utilities in the area, so public administrations in the regions prioritized through NPDR must be financed through specific measures, to create the conditions necessary for rural entrepreneurship in that areas.

We also believe that the prioritization of investments from European funds should be re-thought in the sense of sustainable development of rural areas, to stimulate attracting skilled labor, small local investments, trade and correlate these over time with the development of tourism and leisure services.

In this sense, when the projects will be analyzed priority must be given to the turnover, employees and added value brought to the respective area.

A regional allocation of the funds for non-agricultural activities in the rural areas or different regional scoring grip also could be considered, because there are specificities of different regions, and the priorities established for the entire country could affect some of the regions.

Other important aspects that need to be improved for a better acces to and implemention of the projects in the rural areas regards the reduction of the bureaucracy both in the application stage, and in the implementation stage and also an effective counseling of the potential applicants that in many cases have hesitations or even give up the idea of obtaining european funds because of the dense documentation or of the misunderstanding of the way in whcih the EU funds could be accesed, of the way of making the documentation or misunderstandings regarding the actions that must be done for a correct implementation of the projects.

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Charisma of Safety in Maritime

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Abstract

In most of maritime companies, safety requirements are wrongly perceived as mandatory obligations that must be obeyed and confirmed in order to avoid penalties, fines given by the port authorities or even ship's arrest. By contrary, maritime organizations striving for excellence perceive safety as a valuable asset that assures competitive advantage, and not as an obligation. How can we explain and size such difference of perception? We propose the new concept "charisma of safety" for answering the above. Studying charisma as leaders' quality emerged from 1920's when German sociologist Max Weber studied religious work of Rudolph Sohm, previously developed since 1892. Since then, definition of charisma and of charismatic authorities changed over time. Around 2000's charisma was focusing on emotional bonds between leaders and followers. Further, technological establishment of influential social networks advanced the perception over charisma, in line with changesets of people's core values. In the particular sector of maritime transport, safety incidents and conflicts occur when generations of seafarers unconsciously share traditional charisma (Weber's concept) while other generations of seafarers are expecting updated, emotional leadership behaviors (emotional bonds) in the same enclosed environment (the ship). While comparing the evolution of charisma perceptions and behaviors across generations, what remains a constant in the maritime is the necessity of keeping the safety standards at the highest level when operating ships. In such context, the authors introduce the concept of "charisma of safety" in the maritime, emphasizing the idea of a participative, innovative and exploratory approach for enhancing the safety culture and increasing the performance of safety drills.

Key words: ISM code, leadership, seafarers, ships, autonomous shipping
J.E.L. classification: J28, M14, M54, R41

1. Introduction

In case of persons, charisma was first defined by the German sociologist Max Weber as "certain quality of an individual's personality by virtue of which he is set apart from ordinary men and treated as endowed with supernatural, superhuman, or at least specifically exceptional powers or qualities." (Weber, 1922, 48).

Max Weber, alongside Karl Marx and Emile Durkheim are considered the "founding fathers of sociology" and Weber's text "The Protestant Ethic and the Spirit of Capitalism" was considered a founding text in sociology. (Crossman, 2020).

In the case of products, an Industrial Design teacher explored how the right expressions in a product contribute to its attractiveness or "charisma" (Gotzsch, 2002) and how products can transmit meaningful messages to users, for example, "by communicating status or by evoking personal memories" (Gotzsch et al, 2006).

The question raised within this paper is, beside products, whether intangible services, as the service of providing maritime safety on board vessel, can also be tracked for charisma.

2. Literature review

Max Weber also developed the leadership concept of charismatic authority and detailed the routinization of charisma into authority forms, emphasizing that traditional authority rests on "old rules and powers" and on their sanctity (Weber, 1978). In the biased maritime, the „old rules" still have an impact in the „old school's" generation, impacting the behaviour of the „younger generation" of maritime leaders striving for mentorship and coaching.

Opposed to the concept described by Webber is a modern concept of establishing emotional bonds between leaders and followers as further emphasized by contemporary researchers and reflected in the new generation of seafarers in certain zones of the maritime world.

According to Weber's definition of charismatic authority, "charisma is a certain quality of an individual personality by virtue of which he is set apart from ordinary men and treated as endowed with supernatural, superhuman, or at least specifically exceptional powers or qualities. These as such are not accessible to the ordinary person, but are regarded as of divine origin or as exemplary, and on the basis of them the individual concerned is treated as a leader." (Weber, 1924/1947)

In 1978, D. Barnes delivered a cross-cultural and cross-time historical analysis in charisma and religious leadership, questioning the origins of charisma. He proposed a theory regarding charismatic leadership exploring social conditions leading to charisma emergence. His study was based on examination of biographical data for 15 religious founders recognized by historians as charismatic leaders and their successors from various periods of history and from different parts of the world (Barnes, 1978, pp. 1-18). Barnes also emphasized the distinction between charisma and charismatic leadership, noting that charisma is limited to a particular relationship of authority between leaders and followers, as Weber suggested previously. His theory had foundation on four basic assumptions stipulating connections between charisma as authority and other social and psychological variables:

1. charismatic leaders will perceive sacred symbols as subject to change or verification by their own personal experience with the divine;
2. leaders live during a social change periods or are members of a minority group;
3. leaders have an innovative set of teachings;
4. leaders can exist either within or outside of traditional religion context.

The findings of Barnes study indicate that „charisma is not an individualistic phenomenon hinging only on the extraordinary quality of a leader's personality. Rather, charisma stems from a complex of factors meeting in and around the same individual."

R. Khurana (2004) is one of the many researchers that observed the implications of charisma in the business environment, and in particular, a rise in hiring business leaders based on their charisma, not their skills, aiming to employ persons who can inspire trust and through their charisma push their employees to higher performance.

According to Lindholm C. (2013), the "entrance of charisma into the public vocabulary indicates a need for a word that can account for individual success within a system where status is achieved, not ascribed, but where the reasons for achievement are opaque", explaining the correlation between charisma and the set of updated values and principles, are reasons of drawing new sense to the "star quality" impact, instead of the societal action impact. Such values explain why politicians, sharing same ideologies, will receive different fame and mass recognition, "why one athlete is sought out to endorse products while another, equally talented, remains obscure; why one actor is a celebrity, another a journeyman; why one person lights up a room, another dims it". It is most the visual that counts, the image, no matter if authentic or not, instead of the action, ideologies, valuable principles or the impact of doing awarding things. Although such observation can be taken into account as an emerging trend, however, it cannot be generalized, if we consider

Lehmijoki-Gardner (2014) study on modern African American faith communities in Baltimore where „spiritually visionary leadership continues to be relevant religiously, socially, and politically", no matter the gender. We note that Corcoran and Wellman study made in 2016 on 12 American megachurches suggest the ordinary side of leadership continues to be perceived by attendees as part of the charisma.

Charismatic leaders do smile a lot and their smile was analyzed and explained in various studies, many of them delivered by multinational teams of experts. A small number of facial expressions, i.e. the smile, produced by the same basic affective states, are universally recognized throughout the cultures, while „other aspects of emotionally expressive behavior vary widely across culture", as resulted from an analysis of cultural display rules from 32 countries The study shows „historical heterogeneity is associated with norms favoring greater emotional expressivity" (Rychlowska et al, 2015).

Also relevant are the conclusions of three studies of delivered Stanford psychologist Jeanne Tsai et al (2016) examining whether leaders' smiles reflect cultural differences in ideal affect. The studies confirm the assumption that „cultures differ in the emotions they teach their members to value". Such findings are relevant for in-depth understanding on the way leaders can use simple visual gestures for enhanced communication and, further, how such findings can be applied and integrated in increasing safety culture on board vessel. Another interesting social aspect is observed in countries with lots of immigrants (as comparable to the case of multinational crew vessels) historically relying more on nonverbal communication as using the smile to bond socially (Khazan, 2017).

Beside smiling as natural resource of expressing empowerment, charismatic leaders are best in identifying other appropriate channels of for delivering their messages, effectively, to a large number of people. They encapsulate attention of the masses, while naturally avoiding alienation of communication (Steinbrecher, 2017).

An aspect that should be taken into account is that, similar to interpretation of smile, interpretation of eye contact may lead to ambiguities, which is not the case of charismatic leaders showing self-confidence. Depending on the context, eye contact might express communication openness, superiority or physical attraction while misinterpretation can lead to severe conflicts or unappropriated situations on board vessels.

3. Research methodology

Fundamentals for the „safety charisma" concept emerge from exploratory scientific literature review, observations and informal discussions made between 2018-2020 by the authors of the paper with Eastern European (Romanian, Bulgarian, Moldavian, Ukrainian) respondents from two categories: experienced professionals in navigation, of various age segments and recently graduated BSc in maritime engineering (Navigation, Mechanical Engineering, Electrical Engineering). It is acknowledged that an educational twist was manifested around 1990's, after the Eastern European countries have substituted the communist political regime with a democratic one. The change happened gradually, but with no delay, within Eastern maritime educational institutions, as the contact with Western universities, employers and suppliers has evolved. The transfer from state centralization to market-led decisional systems inside maritime universities came with mind-sets in process of updating to capitalism ideologies and new types of leadership, in cases still of traditional authority, while in other cases more emotional bonded. Teaching leadership or doing mentoring was not a new subject in the maritime of communism. Such concepts had been also taught in communism, in various forms but what brought a visible change was manifested by elasticity in Hofstede's power distance authority hierarchies' levels. In communism, the authority has been intangible by definition, an unsafe ground for the un-obedient. Creativity was kept under methodical control and censorship.

4. Research discussion

In the maritime, relationships between leader and followers is not uncommon to exceed hierarchies. In some cases, the informal leader might be other than the ship master. The follower hopes to attain a specific goal, a certain gain analogical to a transaction, either physical or psychological, by supporting the leader. The estimated goal might be the status gained within the enclosed space of the ship or possible a state of wellbeing so desired during the dull long voyages. Leader's charisma would enhance abstract values, perceived as highly precious within the multinational crew, where Maslow's belonging needs are at high challenge. In return, the leader either nurture accomplishment and self-fulfillment, eithers deploy the followers to gain more influence and power.

Traditionally, charismatic leaders would be associated either to religious worshiped characters (Jesus, Buddha, Mohammed), either to political "deities" moving masses of people during social revolutionary times of critical constraint or beyond (Hitler, Stalin, Lenin, Mussolini, Che Guevara, Kennedy). „Many if not most religions have been founded on the basis of charismatic authority" while charisma is „stemming from divine favor, spiritual possession, or any number of sources" (Cline, 2018). Charisma magnetism is not gender biased, both being associated either to visual attractiveness (Princess Diana) or to hierarchical authority and power (Queen Elizabeth II), either way, classic charisma of the few most charismatic icons had influential impact for mass of people. Until now. Accessibility to social online networks, especially during COVID 19 pandemics when the use of online ICT resources and tools exploded, enable for more regular citizens to become famous to large masses of people.

In-depth anthropological analysis reveals a switching mechanism from wide-known high-status magnetism confirmed over time within biographies of historical characters, to more recent charisma highlighted in ordinary public environments, appealing to common individuals mostly mediatized from the category of contemporary actors, sport stars, regional politicians). This situation reflects a transcending process of acknowledging charisma, from times when expressing leadership was dedicated only to the selected and the most-gifted instead of the common and ordinary. Selective leadership might be the result of periods when mass communication was based on the power of the unwritten word and mouth-to-mouth messaging, while few published materials where accessible to the most. In contemporaneity media communication has exponentially increased, enabling the access of more ordinary persons, gifted or not, to the edges of becoming visible for the mass. If charismatic leaders, passing the rigorous exam of time, deserve their mention within the pages of history books due to actions of high impact on the course of the society (adhering or not to the ethical principles of the period), we observe that, in contemporaneity, leadership charisma is more associated to an updated motivational system of people and less to the impact of leader's action within the society. A reversed set of values bring a reverse scale for fame and recognition. For example, the decreased value awarded to religious beliefs and decreased political engagement in citizenship would switch the attraction of young generations from charisma of religious leaders and politicians to charisma of famous actors, sport persons and influencers of all kinds, once with the raise of wide access to social networks, no matter nationalities, age or cultural background.

Once with experience through years of learning, many seafarers develop an intuition for safety issues, as cited across many safety critical industries including the military, clinical practice, emergency services, and aviation. This sense is developed over many years at sea, with more experienced officers and ratings often appearing to be able to spot emerging safety issues before they fully develop (Chubb, 2020, p.10)

5. Charisma of safety on board vessel (as ship service)

For understanding and exploring charisma of safety we have considered the nine dimensions of the safety culture presented by Ek et al (2000) pilot study testing a questionnaire constructed for measuring safety culture onboard Swedish passenger/cargo ship. The questionnaire was constructed as to determine whether the safety culture dimensions differ for deck/engine departments versus catering department; supervisors versus the supervised; women versus men;

different age groups and in groups with varying numbers of years onboard the ship. The study approached a number of nine dimensions of the safety culture, as listed below, out of which the first four dimensions were proposed by Reason (1997):

- reporting culture (existence of trust and commitment resulting in transparent and proper reporting of safety incidents);
- flexible culture (respect for individuals' skills and experience, with control and decision making transferred to the most experienced and knowledgeable person in an emergency case);
- just culture (clear lines between acceptable behaviour and the non-acceptable, with reasonable consequences after a reporting of a near-miss);
- learning culture (the desire and ability to learn about safety from experience; readiness to implement improvements);
- working conditions (time pressure, fatigue, work training, safety training, clarity in rules);
- safety related behavior (individual and organizational behaviors concerning priorities, responsibilities, risks taking, encouragement of orderliness and pressure to take short curs);
- attitudes towards safety (individual and organizational attitudes concerning the importance of safety, distribution of work and responsibilities, encouragement toward safety practices);
- communication (the amount and clarity of the communication between work groups and different levels of the organization);
- risk perception (the individual's perception of risk and safety on board).

The definition of the safety culture used in the pilot study was the one proposed by the Health and Safety Commission in 1993: „The safety culture of an organisation is the product of individual and group values, attitudes, perceptions, competencies and patterns of behaviour that determine the commitment to, and the style and proficiency of, an organisation's health and safety management" (HMSO, 1993)

Safety culture is best measured „through a cross-referencing of methodologies involving case studies, comparative studies and psychometric surveys" (Cox and Flin, 1998)

Safety on board vessel is the visual identity of the Shipping Company. In 1957, the French philosopher R. Barthes suggested that images express a "meaning" beside their basic function. In 2002 researcher Jose Gotzsch from Grenoble École de Management, France has published the research paper discussing on "product charisma" and the attraction of consumers to buy products with designs transmitting emotions and expressions. So far, studies on charisma discovered and analyzed in services are not available, however, if compared to charisma of products, charisma of services should be also a mean of expressing information and meanings of the culture developed by the issuing entity. The concept of "charisma of safety" is defined as the state of expressing encouragement, responsibility and other non-visible meanings, all necessary when implementing safety procedures and safety culture on board vessel. The transmission of intangible, hidden meanings is delivered unconsciously, beside the basic perception. In the above definition safety should be continuously perceived as a service that is provided on board vessel, complementary to the service of transporting cargo or people. Is a service provided and delivered by the same crew, as encouraged and monitored by the shipping company. The rationale would imply that, in a shipping company where clear policies of safety management stand as fundamentals for growing a safety culture, such culture will be communicated and learned from the shore company to the vessel's environment. Safety culture is trained to seafarers and shore personnel, either formally in training sessions, workshops, external classes, either is perceived informally, through team-building activities or through the care and visible responsibility showed by the Designated Person Ashore (DPA) or other key contacts from the company. Further, a properly communicated and encourage safety culture from shore to ship, has the purpose to nurture a healthy place for developing professional and social bonds between the crew members, thus improving professional productivity and crew performance. A method of stimulating safety culture on board ship is by coaching maritime leaders for enabling positive and participative perception regarding safety. We

suggest maritime leaders expressing "charisma of safety" are expected to share the behavioral aspects necessary to transform the entire maritime organisation in an institution where safety is perceived as a valuable asset, assuring competitive advantage, not as an obligation. listed in Table no. 1 below. The table represents a useful tool for leaders wishing to pass through the transformational experience of becoming leaders with safety charisma. In the table we enlist nine behavioral aspects expected from safety leaders and two key questions for each behavioral aspect useful for mapping and assessing the transformational map for becoming a maritime leader sharing charisma pf safety.

Table no. 1 Behavioral aspects of maritime leaders sharing charisma of safety

No.	How does maritime leaders with charisma of safety behave?	Key questions for mapping transformational roadmap
1	Establish and share a mission of safety and clear safety goals	• What is our company's mission of safety? • What are our company's safety goals?
2	Are responsible to educate seafarers on the company's safety goals	• How can I educate seafarers with the company's safety goals? • How can I manage the levels of my responsibility?
3	Raise awareness about the safety mission	• How can I raise awareness about the company's safety mission? • How effectively did I raised the awareness about the safety mission [*during x-y period of time*]
4	Motivate seafarers (followers) to assume and enjoy safety	• How can I assume and enjoy safety? • How can I motivate seafarers to assume and enjoy safety?
5	Increase safety commitment	• What safety commitment is in the context of my company? • How can I increase the safety commitment?
6	Work together with other leaders and seafarers for the accomplishment of joint safety goals	• Which are the joint safety goals (shared/ common with other leaders)? • With what other leaders should I work together?
7	Identifies new opportunities to improve safety	• Which are the new opportunities to improve safety? • How can I identify new opportunities for safety improvement?
8	Focus on safety continuous improvement	• How can I manage (plan, organize, coordinate, motivate and assess) the continuous improvement of safety? • What resources are needed for continuous improvement of safety?
9	Accepts responsibility for safety incidents and makes sure it never happens again	• Why did the safety incident happen? • How should I proceed to make sure the incident will never happen again?

Source: (Authors' study)

Besides the usual features of "classic" leaders (e.g. identifying and sharing the mission and the goals with their followers) in the case of maritime leaders with "charisma of safety", most notably would be the multiplicative result of training safety charisma to other seafarers that are expected to become, in their turn, safety ambassadors. Especially, the concept is to be applied in case of safety drills where crew participants should be encouraged by the drill coordinator and the safety officer. Crew participating to the drill should be stimulated to deliver their own analyze of the drill performance and to propose innovation for drill's performance increase.

6. The place of charisma in the age of autonomous maritime operations

A maritime autonomous surface ship is defined by the International Maritime Organization as „a ship which, to a varying degree, can operate independent of human interaction" (IMO, 2018), meaning the vessel can provide 100% remote operations or less. Leadership knowledge, understanding and proficiencies required now in one of the most relevant international regulation for safety in the maritime, the International Convention on Standards of Training, Certification and Watchkeeping 1978, as amended (STCW 1978), may change in the context of accelerated

advancement of automated operation of ships. Several studies were published on the topic of legislation changes occurred by the autonomous maritime operations, remotely controlled and operated, e.g. challenges of regulating autonomous ships (Ringbom, 2019) and perspectives of automation impacting employment (WMU and ITF, 2019). A recent Delphi-Analytic Hierarchy Process study on leadership STCW competences in future ship operations indicate that STCW legislation has to be updated, as well as the maritime education and training. „Leadership remains an essential ingredient for future ship operations under both unmanned and manned" ships, while „knowledge of shipboard personnel management and training and (…) ability to apply effective resource management, (...) except the ability to obtain and maintain situation awareness, were deem no longer relevant and important for remote control operators". Further, „the results revealed that the knowledge and ability to apply decision-making techniques (…) to acquire, handle and comprehend large amount of system information, and (..) to obtain and maintain situation awareness could be the main determinants for safe and efficient operation of Maritime Autonomous Surface Ships (Kim and Mallam, 2020, p.172, 179).

So, where will be the place of "charisma of safety" in such context?

As previously mentioned in the definition of the concept, "charisma of safety" has fundamentals in the safety culture which appears, grows and is develops, as a foundation, at the headquarters of the shipping company, being further transmitted, communicated, trained and educated to the ship's crew. In the case of unmanned ships, safety culture and "charisma of safety" remains locally, at the place where it has emerged: the headquarters of the shipping company. Therefore, not only that is still room for charisma of safety in the case of autonomous shipping, but in fact, the actual context of Industry 4.0 and beyond, empowers more the propagation of safety charisma at all stages of designing, delivering and improving the services of transport by the shipping company. Safety culture contribute in establishing patterns of the same routing and means of communication of the safety approach, between both employers and personnel, no matter if the object of work is based on remote control of vessels or classical navigation.

7. Conclusions

This paper had the purpose of establishing diverse pathways for the understanding and enhancement of safety culture on board vessel. Authors consider that not only persons and products have charisma, but also intangible services, as the service of providing safety on board vessel. In the first part of the paper is described and analyzed theoretically the charismatic leader's characteristics, emphasizing the role of the smile and other facial expressions for enhanced communication. Further, based on the research methodology, is presented an exploratory study on developing charisma of safety on board vessels. In the last part of the paper was discussed the necessity of promoting charisma of safety in the context of autonomous shipping, the actual context of Industry 4.0 encouraging, in fact, the on-shore development and propagation of safety charisma at all stages of creating the services of transport. Further analysis is necessary to validate the proposed concept of "charisma of safety" on board vessel.

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Use and Values of Verb Tenses in the Written Tourist Discourse

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Abstract

In printed travel guides, a recurring linguistic process is represented by the use of verbs that convey their persuasive force within the speech, using pathos in order to influence the reader who is dependent upon the utterance. In travel guides, the verb serves to guide, advise, support, but especially to manipulate the reader. The range of values and expressive nuances that verbs accumulate depending on the context is very wide, using the present tense of the indicative mood, in all voices, but also other moods, such as the imperative, the subjunctive, the optative, the conditional, the infinitive or the gerund.

Key words: to discover, to visit, to experience, to observe, to admire
J.E.L. classification: Z13

1. Introduction

Specialized languages are characterized by a narrower choice of verbal moods and tenses in relation to the general language. Nevertheless, verbal characteristics can vary from one language to another. In this section, we will analyze the verb forms that are most often encountered in the written tourist discourse, in Romanian and French languages.

For the purpose of this research, we used printed tourist guides from printing houses that published major guide collections, i.e. Ad Libri for the Romanian language and Le Routard and Le Michelin, for the French language. Thus, for the Romanian language, we analyzed "Ghid Turistic *România*", Bucharest: 2015, "Ghid Turistic *Sighișoara"*, Bucharest: 2006, "Ghid Turistic *Valea Prahovei*", Bucharest, 2006; "Ghid Turistic *Culoarul Rucăr-Bran*", Bucharest: 2006; "Ghid Turistic *Ținutul Neamțului*", Bucharest: 2006. For the French language, we used "Le Guide Vert Michelin Paris", 2013; "Le Guide Vert Michelin-*Alsace*", 2016; "Le Guide du Routard -Paris", 2017; "Le Guide du Routard-Corse", 2017.

2. Theoretical background

Regarding the use of verb tenses in specialized texts, the present tense of the indicative mood is used in the vast majority of cases not as a result of the specialist's choice, but because this tense is necessary for the communication functions that are typical of these texts, i.e. the specialist defines, describes, observes, presents various qualities and traits, and states general truths.

When referring to tenses, Cohen (1986 apund Dann, 1996, p. 49) states that making a journey does not only mean a journey from one place to another, but, above all, a journey through time, often in the past and less in the future. What we often call absolute tenses are actually deictic tense. Within each sphere (present/ past and future), choosing a past/ present/ future form is deictic in nature. Within each sphere, the choice is made according to different aspectual axes, which contain linguistic subjectivity, because they bring into play the way in which the speaker presents the process that can be dilatated, contracted, approached in terms of its development or achievement in the past or, on the contrary, related to the present (Kerbrat-Orrechioni, 1997, p. 46). This indicates the variety of the verb system that allows the subject to place its speech in relation to three axes, i.e. present, past and future. As far as travel guides are concerned, the enunciation time corresponds to the time when the message reaches the reader, and the most frequently used verb tenses are the present (le present/

prezentul), compound past (le passe compose/ perfectul compus), the imperfect or the past imperfective (l'imparfait/ imperfectul), simple past or the past perfective (le passe simple) (for French) and simple future (future simple/ viitor simplu).

As far as verbal moods are concerned, the indicative is the updating mood, i.e. only the present can situate the utterance in relation to the moment of utterance (Maingueneau, 1999, pp. 55-56). Thus, the verb forms in the present provide a sense of continuity and eternity; the verb forms in the past contribute to the consolidation of the cultural authority of the discourse or to the proposal of an escape in time, and those in the future increase the seductive power of the product, while the imperative mood influences the purchase of the product, in other words the journey.

3. Research methodology

This study was based on the analysis of the specialized written discourse, more specifically of the written tourism discourse. From a methodological perspective, we have chosen a corpus made from travel guides in Romanian and French languages, from the tourist field ("Ghid Turistic *România*", Bucharest: 2015, "Ghid Turistic *Sighișoara"*, Bucharest: 2006, "Ghid Turistic *Valea Prahovei*", Bucharest, 2006; "Ghid Turistic *Culoarul Rucăr-Bran*", Bucharest: 2006; "Ghid Turistic *Ținutul Neamțului*", Bucharest: 2006; "Le Guide Vert Michelin Paris", 2013; "Le Guide Vert Michelin-*Alsace*", 2016; "Le Guide du Routard -Paris", 2017; "Le Guide du Routard-Corse", 2017).

4. Findings

The present tense

The present tense of the indicative mood is most used in scientific communication and it contributes to the presentation of facts, theories, definitions, observations, descriptions; it is also employed in order to assert general truths and to formulate scientific laws (Gotti, 2005, pp. 90-95). This is by far the most commonly used verb tense in travel guides. By resorting to this tense, the guide writer creates a special effect, i.e. the reader gets the impression that the action takes place under his/ her eyes, while s/he is reading or that s/he is a witness to what is going to happen (Jacobi, 1999, p. 67). This tense can cover various nuances that go from past to future; it is used in statements that take place on the timeline as a continuum or in different segments of the timeline. Analyzing its occurrences one by one, we can highlight the values of the present tense in travel guides.

Although it is considered that the present tense situates the utterance at the time when the discourse is performed (Dubois, 1991, p. 391), in fact, it can fulfill several functions because it is perceived as historical, descriptive, eternal; it may express a definition, a permanent state or a scientific or general reflection (Lapierre, 1994, pp. 7-22). In other words, a statement whose verb is in the present tense can situate the process in any other period, i.e. past or future or even in all eras (omnitemporal value). Depending on the time interpretation of the statement, we can talk about different contextual meanings as far as the present tense is concerned. For instance, this tense can express general truths, allowing the speaker to evoke an event in such a way that the reader gets the impression that everything is unfolding before his/ her eyes (the report model):

*Până în secolul al XIX-lea, Comarnicul a fost cea mai mare și prosperă localitate de pe Valea Prahovei. **În prezent,** orășelul este doar un centru industrial, cunoscut mai ales pentru fabricile care produc materiale de construcții și cele de prelucrare a lemnului.* (GTVP: 57)

*L'image d'un Paris vidé de ses habitants au mois d'août est de moins en moins vraie. **Actuellement,** nombre de Parisiens passent volontairement les mois d'été dans la capitale, car c'est à ce moment-là qu'ils peuvent se réapproprier leur ville*. (GVMP: 44)

Associated with adverbial expressions that specify a time interval, the verb is in the extended present (the so-called présent étendu):

***De aproape un deceniu,** la Piatra-Neamț funcționează Centrul internațional de cercetare a culturii Cucuteni.* (GTȚN, p. 8)

***Depuis quelques années**, Belleville concentre également une communauté asiatique importante, avec ses restaurants et ses supermarchés.* (GVMP, p. 47)

The verb form traditionally called permanent (generic) present shows the development of a process in a time interval that includes both the past and the future. Because this structure does not refer to a single moment or to a defined one on the time axis, such statements are called ubiquitous statements.

Fundata, situată în apropierea Pasului Giuvala, în zona de contact dintre Munții Piatra Craiului și Leaota, la altitudinea de 1270m, ***este*** *cea mai înaltă localitate din culoarul Rucăr-Bran*. (GTCRB, p. 44)

Le mystère de l'homme au masque de fer. Il ***est*** *l'un des prisonniers les plus fameux de l'histoire de France.* (GRP, p. 150)

A statement in the present tense can express repeated events or actions that are associated with a certain periodicity. There are statements in which the verb updates the iterative aspect, when associated with specific tense adverbials, usually expressed by repetition or frequency adverbs. For instance:

Spre deosebire de centrul istoric, Scheii au o atmosferă mult mai rurală, curți năpădite de verdeață și străzi mai sinuoase, care se încolăcesc pieptiș de-a lungul drumului.[--];brașovenii obișnuiesc să vină la picnic aici, ***în weekenduri.*** (GTRo, p. 115)

Sous les halles de l'hôtel de ville de Saales se tient ***le vendredi*** *apres.-midi, de mi-juin à la fin septembre, le marché des produits de montagne de la Haute-Bruche*" (GVMA, p. 149)

By using adverbials of time or contextual or situational information, a present tense statement can evoke processes whose time intervals are placed in the past or in the future. Thus, when the statement remains related to the moment of utterance, but the process is delayed in the future, we speak of the prospective present and it can be combined with various specialized deictic expressions for the future time reference (GALR I 2008, p. 412).

Mai târziu *(1441-1456), Iancu de Hunedoara repară și întărește Branul, apoi îl însărcinează pe Vlad Țepeș, care pierduse tronul ȚăriiRomânești, cu apărarea sudului Transilvaniei.* (GTCRB, p. 1

Dorénavant, *pour lever toute ambiguïté, Rodin* ***sculpte*** *des oeuvres plus grandes que nature....* (GRP, p. 260)

The present form can replace the past. In this case, we can talk about retrospective present (le présent historique), which cancels the present/ past opposition by updating previous real or fictive events, in relation to the present of the speaker, and implicitly of the reader. The unusual introduction of the present tense into a time system in the past leads to the acceleration of events, making the action more dramatic, as Riegel (2005, p. 301) argues.

După Primul Război Mondial*, în anul 1918, Bucovina se unește cu Regatul României.* (GTBucov, p. 11)

Ce minuscule resto monomaniaque, qui ne vibre que pour l'anguille grillée, est l'antenne parisienne d'un restaurant réputé de Tokyo qui, ***depuis le XVIII^{e}*** *s., ne sert que ça*" (GRP, p. 44)

The narrative present shows a synchronic perspective, i.e. the narration time and the time of the narrated events overlap. This tense stimulates the action and the reader gets the impression that s/he is participating directly in the historical events; s/he has the feeling that the events are narrated as they unfold. Such instances are:

De altfel, în fiecare an, timpde trei zile, de obicei în ultima săptămână din luna iulie, Sighișoara ***se reîntoarce*** *în Ev Mediu: cavaleri în armuri strălucitoare* ***se întrec*** *în turniruri,* ***se desfășoară*** *procese ale vrăjitoarelor, domnițe în rochii strălucitoare* ***se ivesc*** *ca din pământ peste tot, menestreli își* ***deapănă*** *cântările, la fiecare colț de stradă* ***se improvizează*** *piese de teatru,* ***au loc*** *concerte de muzică medievală, alte și alte spectacole*. (GTRo, p. 23)

En Corse, le repas ***se termine*** *généralement par un fruit. Ceux de l'île* ***sont*** *souvent excellents, notamment les oranges et les clémentines. Les gâteaux à la farine de châtaigne* ***sont*** *un véritable régal. Le pastizzu, parfumé au citron,* ***est*** *un petit gâteau de semoule. Mais, en matière de dessert, la grande spécialité corse* ***reste*** *le fiadone, sorte de tarte au brocciu et au citron, parfois imbibé d'alcool*. (GRC, p. 386)

Due to the [-perfective] aspectual feature, the present tense can be used in descriptions. This form is called descriptive present and it corresponds to the speaker's concern for describing the place and the setting of the destination, and also the characters, in order to give the reader the opportunity to imagine the destination described.

Din acest punct al cetății ***se deschide*** *o minunată perspectivă asupra văii Târnavei Mari şi cea a Şaeşului.* ***Urmăm*** *mai departe zidul de incintă,* ***trecem*** *pe lângă o mică poartă de intrare în cetate, cunoscută sub numele de Intrarea Törle (sau Târlei), din capătul străzii Cojocarilor şi* ***ajungem*** *în faţa Turnului Cojocarilor.* (GTSighi., p. 32)

Inauguré en 1992, le parc ***occupe*** *les terrains des anciennes usines Citroën. Deux serres, un axe symétrique, un large perspectif sur la Seine, de vastes pelouses, de l'eau ...c'****est*** *une sorte de Versailles moderne, disent les admirateurs. Déployé sur 14 ha, le parc* ***se divise*** *en trois zones distinctes: le Jardin blanc, le Jardin noir, et le grand parc.* (GRP, p. 458)

Compound past (le passe compose/ perfectul-compus)

Analyzing our corpus, the constructions in the indicative mood are distinguished by the use of the "compound past" as an intermediate tense whose role consists in making connections between past events, prior to the enunciation moment, and the contemporary ones. In utterances where the time interval can be deduced from the discursive context, the location in the past can be ensured only by the verb form without any other time specification (GALR 2008: 416). For instance:

Ca printr-un miracol, centrul istoric al Sibiului ***a reuşit*** *să-şi conserve aproape integral trăsăturile originale.* (GTRo, p. 12)

Situé à l'orée de la place de la République et de ses métros, cet hôtel offre des chambres fonctionnelles côté rue et assez agréables car elles sont plus grandes et plus lumineuses que celles donnant sur la cour. On ***a préféré*** *celles du dernier étage, aux allures mansardées et offrant une jolie vue.* (GRP, p. 112)

However, the process can also be placed in time by using time adverbs and expressions (*cândva, odată, pe vreumuri*) that confirm the past time reference and add the meaning of the distant past:

Oraşul Fălticeni, devenit aşezare de tip urban dintr-un fost târg provincial, a fost ***cândva*** *"locul unde nu se întâmplă nimic"; astăzi însă oferă turistului clipe de nespusă încântare.* (GTRo, p. 102)

À 18 km de Propriano, le petit village, ***autrefois*** *modeste hameau, a offert aux touristes venus une vue sublime sur le golfe du Valinco*. (GRC, p. 227)

When combined with the present tense, the compound past marks anteriority (in relation to the present tense) (Riegel, 2005, p. 302):

De la Horaiţa ***putem*** *ajunge, după o oră de urcuş, la Schitul Horaicioara, amplasat într-un cadru natural deosebit de pitoresc. Bisericuţa, cu hramul Buna Vestire,* ***a fost construită*** *tot de arhimandritul Ermoghen Buhuş, în secolul al XIX-lea.* (GTŢN, p. 48)

Ce puits Renaissance ***est*** *un des plus beaux et des mieux conservés d'Alsace, même s'il* ***a connu*** *au cours du temps quelques mésaventures qui* ***ont entraîné*** *des rénovations*. (GVMA, p. 156)

Imperfect (past imperfective)

As far as rendering meaning is concerned, the imperfect or past imperfective refers to an interval located in the past, an interval that can be rendered by other verb forms or time expressions. In both the written and the oral register, the imperfect/ past perfective is used with multiple time and aspect values, assigned by grammarians. The affinity between this tense and the present is a well-known and interesting feature. Regarding this connection, Wagner and Pinchon (1962, p. 52) draw the attention to their parallel use, stating that the imperfect or the past imperfective is the homologous form of the present tense. The uses of both these tenses are parallel; the only difference is related to the way in which we envisage the processes:

Tâlharii ***bântuiau*** *prin acele locuri: ca atare, în 1701, domnitorul Constatin Brâncoveanu* ***porunceşte*** *să fie scutiţi de dări cei 40 de oameni aduşi din trăisteni, spre paza mănăstirii, iar Mihai Şuţu înfiinţează primul cătun din Sinaia-Izvorul.* (GTVP, p. 39)

Malgré de difficiles conditions d'existence, une vie de quartier extrêmement riche ***unissait*** *l'ensemble des habitants. Fuyant les logements trop exigus, les habitants* ***se retrouvaient*** *dans les cafés et la rue, assurant une vie sociale animée qui* ***perdure*** *encore aujourd'hui*. (GRP, p. 436)

The use of the imperfect tense instead of the simple past tense has always drawn the grammarians' attention, who have tried to discover its various nuances. The analytical aspect allows the imperfect tense to introduce a rupture expressed by the simple past tense, which interrupts the process in the imperfect tense, dissociating the two parts: the initial part, which is achieved, and the other, which remains virtual (must be fulfilled) (Riegel 2005, p. 306). According to Imbs (1960, Gardes-Tamine

1987, p. 43), unlike the simple past tense, the imperfect tense introduces a so-called halo of continuity around it.

*À l'origine, le Louvre n'**était** qu'une forteresse destinée à la protection de la rive droite; depuis, il ne **cessa** jamais de se transformer.* (GRP, p. 48)

The contextual values of the imperfect, seen as extensions of the basic values, materialize in certain particular values that are much more expressive. Thus, like the present tense, the imperfect is used both in descriptions and in narratives; its narrative function is often closely related to the descriptive one. In narrative utterances, the imperfect show secondary actions, placing the facts in the background, namely comments, explanations or descriptions.

*Gospodăria întărită **avea** formă poligonală, cu 5-7 laturi neregulate; anexele **erau** amplasate cu spatele spre exterior şi faţa spre curtea închisă pe toate laturile.* (GTCRB, p. 6)

*À l'époque, ce pont long de 280m et large de 30m **était** révolutionnaire: il ne **portait** aucune maison et le trottoir **permettait** aux passants de circuler sans danger.* (GVMP, p. 79)

However, what is most often highlighted is the picturesque value of the imperfect tense, when it expresses a series of images rather than actions, evoking a certain expectation and arousing the reader's attention. In this case, we speak of the pictorial imperfect as a species of the descriptive imperfect (GALR I, 2008, p. 429), which transposes in writing the expressive means used in painting:

*După ce **se usca** şi **se crăpa** puţin lutul**, se dădea** încă o spoială de lut şi după aceea **se văruia** alb pe dinăuntru şi pe dinafară. Astfel îşi **făceau** oamenii casele care **ţineau** până la 150 de ani şi **era** totdeauna **cald** în ele.* (GTCRB, p. 7)

*À l'époque, pour la teinture des fils, on **employait** des plantes ou des racines tinctoriales: la garance **donnait** du rouge, le pastel du bleu, etc. En revanche, le seul moyen qu'on **avait** de blanchir une laine naturellement écrue **était** de l'exposer à la rosée matinale, très oxygénée. Pour tisser 1m^2 de ce type d'ouvrage, il fallait 1 mois*. (GRP, p. 181)

Simple past tense

This tense shows a clearly delimited process in its development; moreover, it is directed towards the final term (Riegel, 2005, p. 303). Depending on the verb semantics, this process may have a longer or shorter duration, but it is always delimited. It is the fundamental tense of recounting past events; it is the tense used by historians in order to present facts from a closed and distant past (Chevalier et al., 1994, p. 346). The verbs in the simple past tense lead the reader to the forefront and contribute to the sudden acceleration of the story.

*Il y a longtemps, le jeune Georges Brassens **débarqua** chez une certaine Mme Jeanne. Il y **resta** de 1944 à 1966, goûtant la chaleur et l'amitié des habitants de l'impasse. Puis le petit jeune **grandit** et **fit** chanter pendant près de 30 ans tous les coeurs de France. Il **mourut** en 1981, laissant une centaine de chansons immortelles*. (GRP, p. 437)

Sometimes the simple past tense is used with the imperfect tense that describes the setting, explains the circumstances of the action or presents the characters. In other words, the simple past tense shows a sequence of facts, being the tense of the narration or the narrative simple past.

*En 1908, on **décida** de faire passer le métro sous la Seine, entre Saint-Michel et Cite (ligne 4). Le sol trop boueux, était impossible é creuser. On **décida** alors de le geler à -24 ^{0} C. Il **fallut** donc installer une usine à glaçons sur les quais. Dix mois **furent** nécessaires pour avancer de 14km. Cette incroyable prouesse technique **fut** couronnée de succè*." (GRP: 87)

In French, in the current language, in order to denote an event that ended before the moment of speaking, the compound perfect replaced the simple perfect. Instead, the simple perfect appears in the literary language, exclusively in narrative texts or in other genres such as biographies, scientific texts, etc.

The standard/ simple future

Used in order to express processes subsequent to the enunciation act, the future is an absolute tense (GALR I, 2008, p. 442). In our corpus, it is important to point out the use of the standard/ simple future.

*Urcaţi-vă într-una din săniile trase de cai care adastă în centrul Branului şi **veţi vedea** că viaţa poate curge şi în ritm de zurgălăi.* (GTCRB, p. 25)

Le top du jazz mondialisé donne rendez-vous au Duc, comme on va au Blue Note ou au Village Vanguard à New York. Il suffit de dire Phill Woods, Bireli Lagrene,Wynton Marsalis. Ce sont eux que vous ***viendrez*** *écouter ici.* (GRP, p. 47)

There are two other forms that appear occasionally in the travel guide in Romanian (besides the canonical form), especially used in colloquial or dialectal speaking. One of them is the colloquial future constructed from the invariable particle "o" and the subjunctive of the conjugated verb. Some examples extracted from the proposed corpus are:

Plimbându-vă prin acest micuț oraș ***o să descoperiți*** *alte câteva obiective interesante.* (GTVP, p. 30)

Contrar așteptărilor, n- ***o să-i auziți*** *invocându-l pe sângerosul Dracula.* (GTCRB, p. 5)

Despite its rare occurrences in travel guides, we must point out another use of the future, i.e. in Romanian, there is the periphrastic construction called future in the past *trecut* (GALR I 2008: 441), which expresses the posteriority to a landmark in the past. It is formed with the imperfect of the auxiliary "to have" and the subjunctive of the conjugated verb.

Astfel, unitățile transferate ***aveau să fie locuite*** *de către familiile reprezentative pentru zonele din care erau aduse.* (GTRo, p. 57)

In many cases, the speaker uses the future in order to perform an action that will take place, and which will also involve the audience. The tense of desires, par excellence, this verb form is employed by the speaker in order to trigger the audience's adhesion to the presented product and to make them to act.

În satul de vacanță ***veți găsi*** *restaurante amenajate în stilul diferitelor zone ale țării.* (GTRo: 34)

On aime s'y poser la nuit venue pour siroter lentement. Les barmans sont de véritables experts en mixologie et ils ***sauront*** *faire votre bonheur*. (GRP: 47)

In French, the simple future tense is competed by various auxiliaries (devoir, pouvoir) or verbal periphrases. Thus, in the French corpus, we have noticed the form of the near future (le futur proche), which is frequently encountered in oral discourses; however, its occurrence in the analyzed corpus is limited. It is formed with the present (indicative mood) of the verb "aller" and the infinitive of the conjugated verb (aller + l'infinitif).

Le Paris qu'elle fantasme ***va se heurter*** *à la réalité.* (GRP, p. 615)

Nous ***n'allons pas énumérer*** *ici tout ce qu'il y a à voir: chaque pièce, pour ainsi dire, est un chef-d'œuvre*! (GRP, p. 263)

The future perfect tense

As the name suggests, the future perfect tense expresses facts prior to the action rendered by the simple future. Associated with an adverbial that specifies the time frame, the future perfect tense can be used in an independent sentence, in order to express the end of an action in the future. In Romanian, the future perfect tense, which has a bookish nature, being replaced by the standard future, consists of the auxiliary verb "to be" in the simple future and the participle of the conjugated verb. We did not find any example of this type in the guides written in the Romanian language. In French, the future perfect tense, as a compound form, consists of the simple future of the auxiliary verbs "avoir" or "être" and the past participle of the conjugated verb:

En partant, il lanca à son père: "Tu n'auras de mes nouvelles que lorsque ***j'aurai fait*** *fortune*". (GRP, p. 263)

5. Conclusions

Based on the hypothesis professing that the verb is the center of the sentence, it may be stated that its value is defined only by reference to the context where it occurs and in relation to other morphological elements that surround it. Thus, the present tense of the indicative mood places the events in a given era through the tense's temporal, timeless and impersonal value, while the perfect-compound and the imperfect tenses recall fulfilled or nonfulfilled past actions.

This analysis of the verb tenses in the selected corpus shows the complexity of the verbal system in which the combination of different types of tense and mood values leads to a range of various effects whose stylistic uses are innumerable. The verb mood indicates the speaker's attitude towards his/ her utterance and the relationship s/he adopts with the audience when utterance is performed.

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Comparative Analysis of Post-event Funding Sources

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Abstract

Over time, extreme risk events have been constant, but the frequency and severity of these events have continued to increase over time, and their consequences often trigger economic and public health crises.

Extreme risk events can also cause significant budgetary pressures, with a short-term impact on the fiscal field and a long-term impact on development.

In order to reduce the economic impact of extreme events and to cope with the costs of humanitarian aid, recovery support and economic construction following an extreme event, it is necessary for the authorities to develop various strategies in advance.

The article aims to identify optimal post-event/ post-crisis financing solutions, in order to mitigate the economic impact of extreme risk events.

In this article were used qualitative methods, such as data processing and analysis, comparative analysis, documentation of reports, analysis of reference articles and presentation of conclusions.

Key words: source of financing, insurance, extreme event, risk.
J.E.L. classification: Q58.

1. Introduction

Extreme risk events led to the loss of lives and livelihoods, destroyed infrastructure, businesses and buildings, and reconstruction and recovery after such events can take years.

The lack of an emergency financial plan or financial strategy when an event of extreme risk appear has the negative effect of increasing exposure to such events and dependence on funding from grants or post-event external aid.

Most of the time, post-event financing is activated more slowly, due to the lack of tools needed in such chaotic and ever-changing events, the assessment process of financial risk post-event or the bureaucracy of obtaining public funds, which requires legislative approvals.

In post-event financing, it is important to create public-private partnerships because the post-event response is complex and often adequate information is not available and funders cannot assess the risk they are going to take.

These partnerships can help funders or other service providers overcome the limitations of lack of information to provide financial products following an extreme event.

2. Theoretical background. Conceptual approaches on financing risk

Adequate risk management of extreme events also includes the risk financing part.

Risk financing involves the development of a plan that includes everything to be financed and the financial instruments available to a country if an extreme event occur, which also clarifies the responsibilities of the authorities both during and after the extreme event took place.

The Organisation for Economic Co-operation and Development, in 2012, said that financing risk involves maintaining risks and adopting a detailed financing strategy in order to ensure that sufficient funds are available that could be used where there will be financial needs due to the occurrence of an extreme event.

Financing risk includes financial instruments like donor support (emergency aid), donor support (recovery and reconstruction), emergency budgets, reserves, budget reallocation, emergency debt facility (eg CAT DDO), internal credit (eg bond issue), external credit (for example emergency loans), parametric insurance, ART mechanisms (eg CAT bonds, weather derivatives) or traditional insurance (based on indemnity).

3. Research methodology

This article aims to identify optimal post-event/ post-crisis financing solutions, which are needed to reduce the negative economic impact of extreme events,

In the elaboration of this article were used qualitative methods such as data processing and analysis, comparative analysis, studying reference articles and documenting reports.

4. Sources of post-event funding - current status

Financial risk analysis helps government representatives make informed decisions and use the tools to finance the risk of extreme events effectively.

The characteristics that form a country's financial resilience, were highlighted by World Bank, which are constantly improved by financing and transferring disaster risk, namely: adequate risk information, ownership of risk, the cost of capital, the timeliness of post-disaster financing and discipline. These are presented in the following figure.

Decision makers (from the private or public environment) need up-to-date information on risk in order to assess the price of risk as accurately as possible, to perform an analysis of costs and investments that can reduce risk. Another feature, called risk ownership, helps us to better understand who is responsible for the risk that may arise and concretely establishes the responsibility of each actor (donors, governments, private sector or households).

Access to capital involves a cost of it, set according to the time required to procure funds that can be used if an extreme event could occur.

Cost-effective financing of funds is needed to support reconstruction and recovery activities after an extreme risk event occurs. Applying a cost financing strategy makes optimal use of financial resources in order to reduce costs.

The fourth feature, namely the timeliness of post-disaster funding, refers to the fact that the funds should be able to be used at the right time, in order to cover all needs, both intervention and reconstruction and recovery.

The last feature identified by the World Bank is discipline. This means that actors (governments, businesses or households) are helped, through the risk financing plan, to make a plan before the extreme event, which will include how the risk financing budget will be formed, but also details on how this budget will be spent.

Figure no 1. The characteristics identified by the World Bank for the creation of strategies for financial protection against disasters



Source: (GFDRR, World Bank Group, 2014, 27).

Risk financing instruments may be combined by the authorities carrying out such strategies, depending on the frequency and severity of extreme events. Such a strategy involves a stratification of risks, which primarily ensures the use of the funds with the lowest costs, and in exceptional cases the funds with the highest costs are used. For example, insurance may provide coverage against extreme events, but is not adequate to protect against recurring low-intensity events. In such a case, the government could consider setting up a dedicated emergency fund to maintain this lowest level of risk.

Natural disaster risk financing instruments can be classified into pre-event or post-event planned financing instruments.

In order to adopt an effective strategy in case of natural disasters, the combined use of financing instruments, both planned before and after the event, is recommended.

If funding needs are high, obtaining post-event financial resources can be difficult and can lead to high costs and development delays. For this reason, pre-event financial instruments are also needed, which can help better post-event expenditure planning. (International Bank for Reconstruction and Development, Asian Development Bank, World Bank 2017)

The funding mechanisms that governments use to respond to the economic impact of disasters, planned before an extreme event occurs, are emergency budgets, reserve or disaster funds, emergency loans and disaster risk insurance.

Many countries use pre-event budgeting by supporting insurance funds and the use of emergency funds, but it requires trade-offs of current consumption for savings and mitigation, as well as procedural safeguards against opportunistic efforts to redirect disaster savings to other uses.

Planned pre-event budgetary policies increase national economies, reduce risk exposure and promote risk mitigation before the event occurs, while post-event budgetary policies can lead to a reduction in national economies caused by disasters.

When an extreme risk event occurs, it is the government that provides the first response to this event, locally or nationally, but most of the time they do not have large budgets for emergencies, that is, budgets that are spent only if something exceptional happens.

During an extreme event, cash must be mobilized, but this requires new loans (essentially performing an account overdraft), or a government has to reallocate funding from other budgets, which involves a cost. In richer countries, borrowing or reallocating funds can be difficult and expensive, but politically important enough to move forward. For poor countries, its consequences would be more severe, as spending is usually already tight, borrowing is more expensive, and reallocations can affect basic government functions. Thus, these countries can turn to global humanitarian agencies and development partners for support. (Clarke D., Dercon S., 2016)

To meet their post-disaster funding needs, governments typically use budget reallocations, tax increases or loans.

Another source of post-event funding, considered to be the cheapest, is donation or international aid.

5. Comparative analysis of planned financing solutions before and after the event

The fastest financial instrument that can be used to finance risks is budget relocation, but these funds are usually small, while loans may have high costs or be unavailable (especially in countries with high debt). It takes a period of time to apply tax increases and can have negative effects on the already fragile economy after an extreme event.

Donations can cover only about 8% of the direct economic losses of extreme events. (Swiss Re, 2016)

Financial risk transfer is part of a global approach to risk management. Integrated risk management follows four stages: from risk identification and assessment to risk mitigation and adaptation.

The transfer of risk through insurance helps to reduce the pressure on the government after an extreme event and improves the certainty of planning for the public sector, thus managing to avoid long-term fiscal instability.

Risk transfer (insurance) moves external risk to capital markets and investors. It provides the best channel to reduce the costs of major disasters and to provide rapid capital for reconstruction. (Laframboise N., Loko B., 2012)

Financial risk protection complements risk reduction activities. Authorities need to work to reduce risk factors, which will also have the effect of reducing the economic and financial impact of extreme events. In a country, the lack of a risk financing strategy implies an increase in the possibilities of financial shocks. (GFDRR, World Bank Group, 2014)

Financial protection also plays an important role in helping countries become more resilient to climate risks.

It is important for each country to have a document describing the responsibility of the various actors for post-disaster relief, early recovery and reconstruction (including any urgent budget line requirements) and the timetable for key stages in the budget process. Governments also need to review procedures for reallocating budgets after a disaster, preparing and approving additional budgets, and rules governing the release of public resources for disaster response purposes (usually related to declaring a state of disaster at various levels of government). It should be mentioned in this document whether budgetary flexibility is constrained by a limited proportion of expenditure. Finally, should be mentioned any important differences between actual budgetary practice and formal procedures and processes. (International Bank for Reconstruction and Development, Asian Development Bank, World Bank, 2017)

The following table highlights the advantages and disadvantages of using pre-event and post-event planned financial instruments.

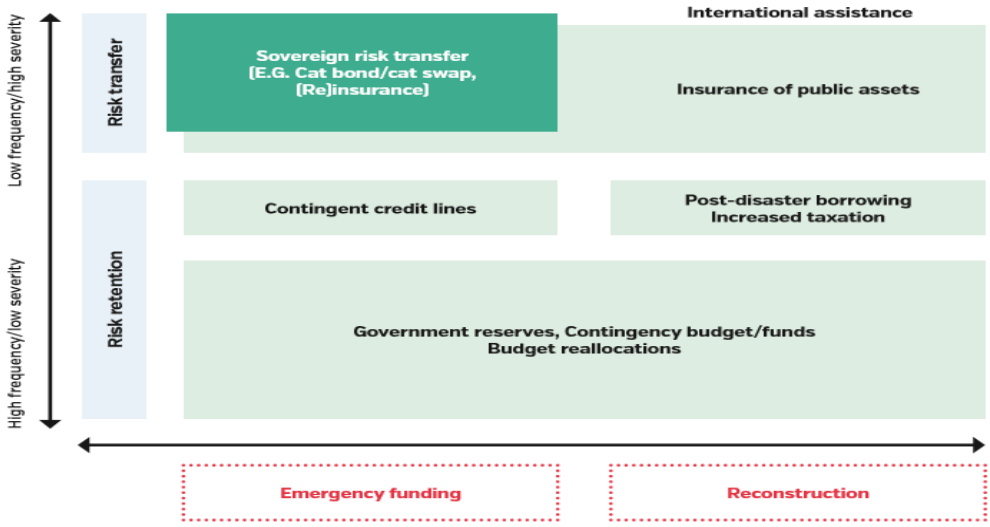
Table no 1. Advantages and disadvantages of planned financial measures before and after the event

Pre-event planned financial measures		
Measures	**Advantages**	**Disadvantages**
Well developed private insurance industry	It transfers risks to the private market and stimulates price competition	It requires the legal framework, acceptance by the population and the development of the local insurance sector
Government as a buyer of insurance (macro insurance)	Provides financing as needed, with no obligation to reimburse	Innovative solution, requires time for implementation
Emergency financing	Guaranteed financing under pre-agreed conditions	Increases indebtedness, and additional borrowing may be restricted
Reserve funds	At the discretion of the owners, a positive signal for investors	The opportunity costs of holding liquidity and takes a long time to reach the critical dimension
Post-event planned financial measures		
Measures	**Advantages**	**Disadvantages**
Budget	Governments can allocate funds autonomously	Limited funds, divert resources
Tax increases	Governments can act autonomously	Limited, politically sensitive funds can diminish economic recovery
Debt/ Claims	Standard, proven tool	Potentially slow and expensive, it often requires a credit rating
Donor help	Cheap	The granting process can be slow and the amounts are uncertain

Source: (Swiss Re, 2016, 5).

Better financial protection against extreme events that differ in severity and frequency, involves the combined use of different financial instruments (known as risk layering). A recommended risk stratification model is presented in the following figure.

Figure no. 2. Risk stratification strategy that can be applied by governments



Source: (International Bank for Reconstruction and Development, Asian Development Bank, World Bank, 2017, 22).

Governments should make decisions on the use of financial instruments on the basis of economic and social considerations.

Emergency budgets and reserves, being the cheapest sources of risk financing, can be used to cover recurrent losses, and after their exhaustion or if they last until they can be accessed, financial instruments such as emergency credit can be used, loans and insurance. It is recommended that governments first use funds for recurring events, and increase their financial capacity to fund less frequent but more severe events.

The resources needed for larger reconstruction programs are rarely needed immediately after a disaster, and reconstruction planning takes time, engineers need to design new infrastructure, projects need to be tendered and contractors need to mobilize.

Reconstruction operations often begin six months or more after a disaster, and rehabilitation can sometimes take several years. (Ghesquiere F., Mahul O., 2010)

A pattern of combined use of financial instruments was also identified by the authors Clarke D., Mahul O., Poulter R., Teh T. L. (2017).

Their paper presents a framework for assessing the costs and timing of alternative risk finance strategies and what are the key factors for governments to consider when establishing appropriate strategies to ensure financial resilience to disasters. Thus, they present a disaster risk financing model, which allows the government to consider the costs of financing their urgent debt in the event of a disaster, using different combinations of financial instruments and to minimize this cost based on their preferences for risk and the proposed objectives.

Such a model refers to two stages. A first stage involves the analysis by the authorities of budgetary and financial instruments, and the second stage involves decisions by the authorities on the financial and budgetary instruments that can be used to finance costs when the event takes place.

At the beginning of an year, the government considers that it will be exposed to an uncertain loss and has access to five financial instruments, namely: the reserve fund, an emergency credit line, budgetary reallocation, post-disaster emergency loans and insurance. In the first phase the government sets the maximum amounts that can be used for each financial instrument at its disposal and in the second phase it decides how much of each financial instrument to use to finance expenditures and cannot use more than initially set.

After conducting these analyzes, the authors compared the opportunity cost of each financial instrument, but pointed out that some instruments, although more expensive, have other benefits (for example, they can be obtained more quickly). The authors concluded that different risk financing strategies have different costs for the government.

Governments in countries such as Japan, New Zealand and Turkey use pre-disaster budgeting as more cost-effective. Many countries offer insurance directly, others support private insurance through reinsurance or guarantees and others create general emergency funds.

For example, in Japan, a country prone to natural disasters (earthquakes and active volcanoes, between 199-2005, 20% of earthquakes that reached a magnitude of 6.0 or greater had an epicenter in Japan and 7% of active volcanoes from the world is in this country) promotes loss mitigation and pre-event saving. Japan has a disaster policy that consists of mitigating and insuring disaster risk. (Phaup M., Kirschner C., 2010)

Being aware of the risk of disasters in Japan, government officials have created an emergency budget and a reserve fund for disaster management, namely for disaster mitigation, preparedness, response and recovery activities. This budget represents about 5% of the national budget and is divided into four areas: scientific and technological research (1%), disaster prevention and preparedness (23.6%), national land conservation (48.7%) and disaster recovery and rehabilitation (26.4%). The emergency budget used in Japan is flexible, most of the funds are spent on land conservation, but in some years with a higher number of disasters, a larger amount of this budget has been spent on recovery and rehabilitation.

Another financial instrument used in Japan is insurance for households in the event of an earthquake. These insurances are not compulsory to buy, but the government obliged the insurance companies to have in their offer insurances for earthquakes (in 2008, 23-27% of the households had such insurances). In Japan there is also the Japan Earthquake Reinsurance Company (JER), established in 1966, to ensure that in the event of a catastrophic earthquake, insurance claims will be paid.

In developed countries, losses from natural disasters are small relative to national income, rarely exceeding 2% of gross domestic product (GDP), and they are more concerned about not being affected by major economic recessions.

Some countries may choose a strategy that combines pre-event and post-event planned instruments, making it difficult to predict how countries will choose to form their budgets to respond to disasters.

The World Bank has recommended a multi-level approach to disaster risk financing - a strategy consisting of different financial instruments for different levels of risk, as appropriate and cost-effective. (Clarke, D.J., Mahul, O., Poulter, R, 2017)

6. Conclusions

Over time, the authorities in each country have used financial instruments to a greater extent without a well-established strategy to reduce the economic effects of extreme events. Currently, countries are focusing on implementing a risk financing strategy before an extreme event occurs.

Such proactive planning has gradually been used by most governments, as this risk financing aims to increase the resilience of countries that are vulnerable to the financial impact of extreme events.

A comprehensive strategy can ensure access to post-disaster funding before an event occurs, ensuring rapid and cost-effective liquidity to fund recovery efforts. The main groups benefiting from financial protection are homeowners, governments, SMEs, farmers and low-income people or no income people.

Even if the planned pre-event budget has the potential to increase well-being compared to the planned post-event budget, policy makers may prefer the latter for several reasons. Pre-event budget planning is done more in countries at high risk of disaster.

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Innovation Around the World: An Analysis of the Top 10 Most Innovative Companies in the Period 2018-2020

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Abstract

Innovation is a powerful driver for companies around the world, enabling them to achieve success on this constantly changing economic environment through innovative competitive advantages.

The purpose of the paper is to present the situation of the top 10 most innovative companies around the world for the period 2018-2020. From this point of view, the used methodology is based on the research of various secondary sources such as articles and reports.

The findings show the dominating position held by American companies being challenged by the Asian companies.

Key words: innovation, company, rank, United States of America, Apple
J.E.L. classification: F00, F23, O30

1. Introduction

Around the world, highly competitive companies focus their entire architecture on innovation-creation. Because "innovation and business performance are positively correlated" (Saliba de Oliveira et al., 2018, p.154), innovation becomes the fuel that provides companies access to various market segments, boosting their sales, increasing their market share, improving their business models (Tohănean and Toma, 2018) managing to better satisfy consumers' needs, generating added value, creating wealth (Toma, Grădinaru and Catană, 2020, p.264) and providing them the required "sustainable competitive advantage" (Ruiz-Moreno, Garcia-Morales and Llorens-Montes, 2008, p.510) that is imperious in the global economic competition. Reaching "success through various innovations" (Grădinaru, Toma and Zainea, 2020, p.78) is not a simple path that companies choose as it involves true determination, long term efforts and, in so many cases, huge investments in research and develoment. Nowadays, companies have become true and "key drivers of innovation activities" (Yu et al., 2020, p.4).

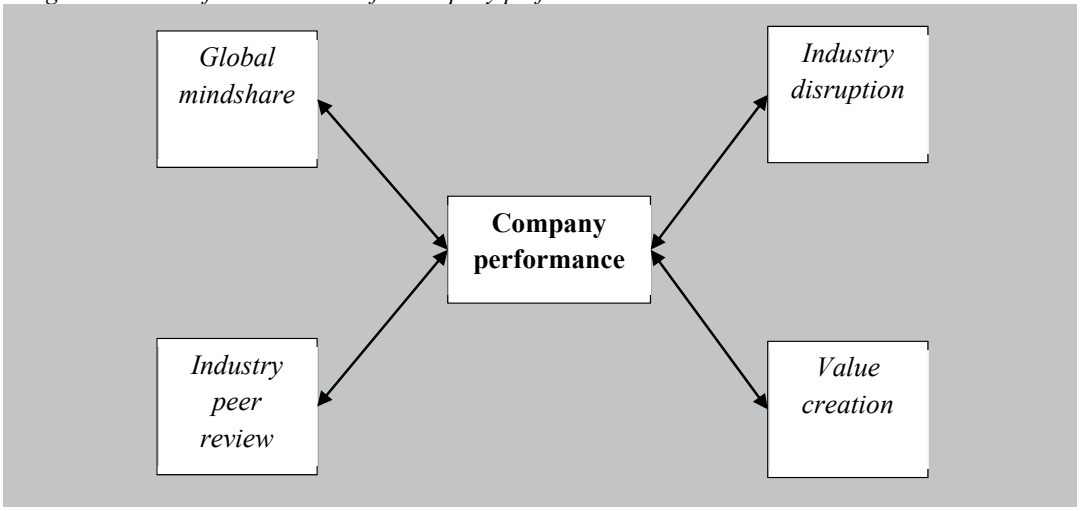
The aim of the paper is to illustrate the situation of the first 10 most innovative companies in the world for the period 2018-2020, using the data provided by the Boston Consulting Group. The remaining sections of the paper are organized as follows: the second section is focused on exhibiting the theoretical background; the third section is specific to the methodology used for the research; the fourth section highlights the findings of the research and the paper ends with conclusions.

2. Theoretical background

The focus of the paper is put on the Boston Consulting Group's rankings called "The Most Innovative Companies" specific to the period 2018-2020. This annual ranking is based on a survey given to global innovation executives (one year before the actual rank is done).

In 2018, the rank was created based on a survey of over 1000 senior innovation leaders "from a wide variety of countries and industries" (Boston Consulting Group, 2018). In 2019, the global survey was already applied to "more than 2500 senior innovation leaders" (Boston Consulting Group, 2018). For 2020, the survey was addressed to 2500 global innovation executives who had to assess the companies' performance based on four dimensions (Boston Consulting Group, 2020a): global mindshare, industry peer review, industry disruption and value creation (figure no. 1) and was also based on its "global innovation performance database of more than 1000 firms" (Boston Consulting Group, 2020b).

Figure no. 1. The four dimensions for company performance



Source: (Boston Consulting Group, 2020)

Each dimension is aimed at:

- Global "Mindshare" shows the amount of votes given by the executives.
- Industry Peer View portrays the number of votes within the company's own industry.
- Industry Disruption: is about The Diversity Index (Herfindahl-Hirschman) of votes across the industries.
- Value Creation highlights the total shareholder return (TSR) including share buybacks (for the 2020 rank, data from January 2017 through December 2019 is used).

In order to better understand the findings, a brief overview of the concept of innovation is required as it is "widely agreed to be a fundamental determinant of organisations' performance" (Goswami and Mathew, 2005, p.380). From this point of view, a comprehensive research (Baregheh, Rowley and Sambrook, 2009, p.1334) shows that "innovation is the multi-stage process whereby organizations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace."

3. Research methodology

For the research objective to be reached, the authors used a methodology based on a quantitative research method. The analysis of the situation specific to the top ten companies in the world using the innovation criteria was done using sources of secondary data, such as books, articles and reports (ranks). The literature review was carried out using electronic databases.

4. Findings

This chapter is focused on the evolution of the world's most innovative companies in the world for the 2018-2020 period. For this purpose, the analysis is based on the data provided by the Boston Consulting Group, highlighted within their "The World's Most Innovative Companies" rank. Their

ranking is largely based on a survey of addressed to executives (in global innovation), evaluating the companies' performance.

The first ranking presented in the analysis portrays the situation for 2018 (table no. 1), using the 2017 BCG global innovation survey data.

Table no. 1 The top 10 most innovative companies for 2018

Rank	Company name	Country of origin	Industry	Company type
1	Apple	United States of America	Computers, Office Equipment	Public
2	Google	United States of America	Internet Services and Retailing	Public
3	Microsoft	United States of America	Computer Software	Public
4	Amazon	United States of America	Internet Services and Retailing	Public
5	Samsung	South Korea	Electronics, Electrical Equipment and Heavy Industry	Public
6	Tesla	United States of America	Motor Vehicles & Parts	Public
7	Facebook	United States of America	Internet Services and Retailing	Public
8	IBM	United States of America	Information Technology Services	Public
9	Uber	United States of America	Internet Services and Retailing	Public
10	Alibaba	China	Internet Services and Retailing	Public

Source: (Ringer et al., 2018, p.4) (Fortune, 2020)

Within the 2018 rank, the analysis of Microsoft has factored in Nokia as well, the same procedure being applied for Samsung, implying that it includes all the business groups that are part of Samsung (electronics and heavy industry).

The leading company Apple, famous "for its innovations in hardware, software, and services" (Podolny and Hansen, 2020, p.88) due to its extraordinary leadership model and its organizational design.

From a country perspective, the 2018 rank is remarkably dominated by the United States of America (placing 8 companies in the top 10); the other two spots are occupied by South Korea and China.

Considering an analysis by industry, it is clear that digitalization plays the decisive role and, thus, there is a noticeable shift towards digital innovation. Therefore, digital technology becomes essential in achieving business goals (Nylén and Holmström, 2015, p.57) to an increasing extent. When looking at the industry in which they operate, out of the top ten companies, five are from internet services and retailing industry (Google, Amazon, Facebook, Uber and Alibaba).

An observation is to be done connected to the type of the company, as for 2018 all the companies are public.

The second rank analyzed highlights situation for 2019 (table no. 2), using the 2018 BCG global innovation survey.

Table no. 2 The top 10 most innovative companies for 2019

Rank	Company name	Country of origin	Industry	Company type
1	Alphabet/Google	United States of America	Internet Services and Retailing	Public
2	Amazon	United States of America	Internet Services and Retailing	Public
3	Apple	United States of America	Computers, Office Equipment	Public
4	Microsoft	United States of America	Computer Software	Public
5	Samsung	South Korea	Electronics, Electrical Equipment	Public
6	Netflix	United States of America	Entertainment	Public
7	IBM	United States of America	Information Technology Services	Public
8	Facebook	United States of America	Internet Services and Retailing	Public
9	Tesla	United States of America	Motor Vehicles & Parts	Public
10	Adidas	Germany	Apparel	Public

Source: (Ringer et al., 2019, p.4) (Fortune, 2020)

Within the 2019 rank, the analysis of Samsung only factors in Samsung Electronics (as opposed to the 2018 rank, where the heavy industry was taken into consideration as well).

The leader is represented by Alphabet (Google), managing to surpass the former leading company, Apple (falling down to the third spot). The holding company Alphabet was created so as to separate the search engine (Google generates most revenue for the group) from their riskier moonshot projects (Waters, 2019, p.15), highlighting the future attitude towards disruptive innovation, as this is the "era of exponential technologies" (Wadhwa, 2015, p.1).

Considering a country analysis, the rank for 2019 is still dominated by eight countries from the United States of America (seven of them being the same as in 2018; Netflix replaces Uber); the other positions are held by South Korea and Germany (replacing China when referring to the 2018 rank).

Within the industry, a noticeable focus is put on the use of Artificial Intelligence and ecosystems. Out of the top 10 companies in the world for 2019, the internet services and retailing industry (Alphabet, Amazon and Facebook) is still dominating (but with only three companies opposed to the previous year).

All companies from the 2019 rank went public.

The third examined rank is specific to the situation for 2020 (table no. 3), using the data from the 2019 BCG global innovation survey.

Table no. 3 The top 10 most innovative companies for 2020

Rank	Company name	Country of origin	Industry	Revenues ($M)
1	Apple	United States of America	Computers, Office Equipment	Public
2	Alphabet	United States of America	Internet Services and Retailing	Public
3	Amazon	United States of America	Internet Services and Retailing	Public
4	Microsoft	United States of America	Computer Software	Public
5	Samsung	South Korea	Electronics, Electrical Equipment	Public

6	Huawei	China	Network and Other Communications Equipment	Private
7	Alibaba	China	Internet Services and Retailing	Public
8	IBM	United States of America	Information Technology Services	Public
9	Sony	Japan	Electronics, Electrical Equipment	Public
10	Facebook	United States of America	Internet Services and Retailing	Public

Source: (Ringer et al., 2020, p.16) (Fortune, 2020)

The 2020 rank places (as in 2018) Apple on top of the leaderboard and, thus, pushing Alphabet into a follower's position.

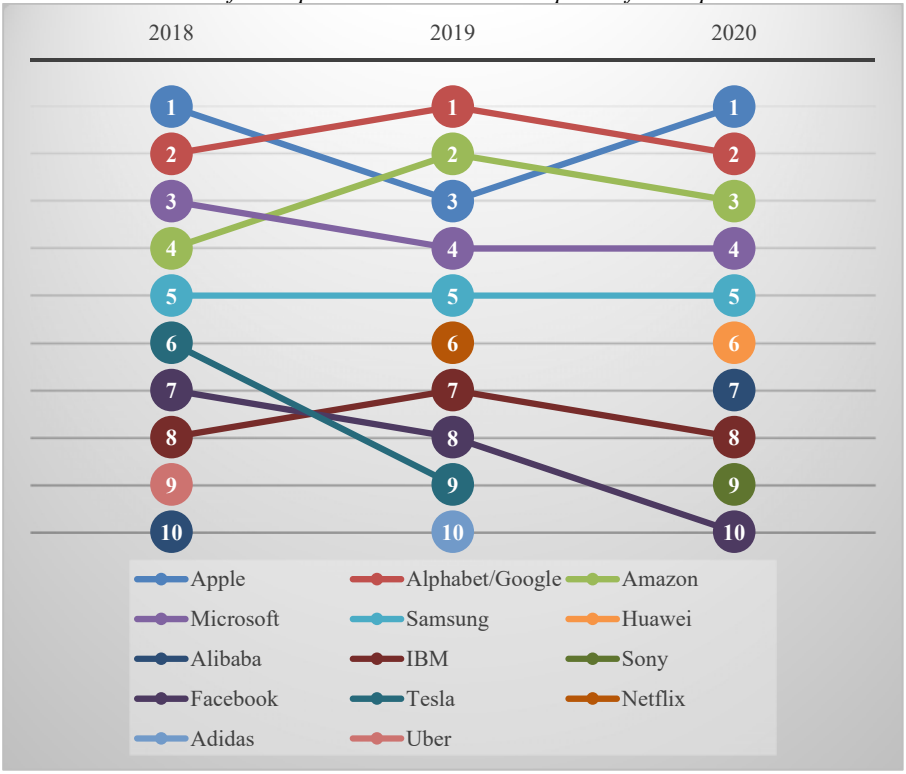
From a country perspective, the United States of America are still dominating with six companies, weakening only by a little its previous domination (from 2018 and 2019). China now has two companies placed within the top 10 most innovative companies and the rest of the rank is completed by South Korea (represented in 2018 and 2019 by Samsung) and Japan (with a new entrant, Sony).

Within the industry, serial innovation becomes a prerequisite. Within the 10 companies in the world for 2020, there are four companies from the internet services and retailing industry.

Since 2018, this is the first time a private company enters the rank: China's Huawei.

An interesting situation is revealed by the analysis of the evolution of the top ten most companies in the 2018-2020 period (figure no. 2).

Figure no. 2. The evolution of the top 10 most innovative companies for the period 2018-2020



Source: Author's contribution based on tables 1, 2 and 3

Within the three year period analysis, there are seven companies that have a constant presence {Apple, Alphabet ["Google's parent company" (Hartmans and Meisenzahl, 2020) after Google's reorganization from 2015 in order to become Alphabet], Amazon, Microsoft, Samsung, IBM and Facebook}, two that have appeared twice [Alibaba (for 2020 and 2018) and Tesla (for 2019 and 2018)] and there are five other companies that have only appeared once [Huawei and Sony (for 2020), Netflix and Adidas (for 2019) and Uber (for 2018)].

5. Conclusions

Innovation is a prerequisite of today's competitive environment, becoming the driving force behind any company that wants to succeed, following the results of other studies (Toma and Grădinaru, 2017). Moreover, as the use of Artificial Intelligence increases and as digitalization becomes a constant, the winner's game may only be played by those that are disruptive. The United States of America continues its domination among the top innovative companies in the world but is faces a strong challenger represented by Asian countries. It is interesting to see what the future holds for this potential "clash" between the two power poles in the world in their pursuit for global economic supremacy, as other studies have demonstrated (Toma, Marinescu and Grădinaru): America and China.

Future research can be conducted in the direction of comparing this ranking to other similar or complementary rankings such as the Global Innovation Index (Cornell University, INSEAD, and the World Intellectual Property Organization), World's Most Innovative Companies (FastCompany), The World's Most Innovative Companies (Forbes), Global Creativity Index (Martin Prosperity Institute) etc.

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Romania's Labor Market Prospects: Indicators for 2010 – 2020 and Estimates for 2030

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Abstract

For an adequate view over the Romanian labour market statistical data was explored, data sets published by INS Romania, EUROSTAT and CEDEFOP. On the topic of the future of the labor market, the interdependent dimensions of future work the number of available and the quality of occupations, discrepancy among the remunerations, social protection, employment relations and social communication. Data collection by economical active citizens - employment and unemployment rate underlined a low employment rate due to high number of inactive people, mismatched priority occupations, low qualifications and lack of needed skills for the job. The data collection considering forecast of the future work by occupations, economy sectors, job openings identified the same issues. Millions of jobs are transformed or jeopardized as a result of automation implementation. Other types of professions are created, and the routine assignments are taken over by artificial intelligence. The new careers request non-cognitive and digital capabilities.

Key words: labour market, mismatch, skills, employment growth
J.E.L. classification: E24, J21, J23

1. Introduction

The current economic crisis requires finding solutions to increase the employment rate through national and European programs and strategies guided toward workforce improvement. Updating the school curriculum and vocational training adapted to the needs of the labor market, forming an entrepreneurial culture and lifelong learning are the ways to increase employment and reduce long-term unemployment.

The economic development of a society is determined by the degree of qualification, emphasizing continuous training and updating the skills needed for human capital, increasing of the workforce and rise of employment rate, the investment in education, professional training, research, innovation and development and the integration and advancement of digital technologies.

The institutional environment, accessible resources and capitalizing on the potential of artificial intelligence are the main components of economic progress.

2. Literature review

The study of the labor market requires the survey of employment rate (ER), productivity, the cost and the quality of work, unemployment rate (UR) and the level of training of the work force (WF). Changes in the structure of the labor market (LM) are given by the transfer of WF between the three sectors, primary secondary and tertiary, agriculture-forestry, industry - construction and services.

2.1. Share of the employed population

The recovery from the economic crisis and its impact on the work force requires to identify changes and trends among the labour market.

Statistical data provides an overview of the value of the employment rate (ER) and the unemployment rate (UR) over the last 20 years. For the year 2000 Romanian employment rate registered a value of 63.6% and 6.9% unemployment rate, for 2010 ER was 60.2%, UR 7.0%, for 2015 ER reached 61.4% and 6.8% UR, for the year 2020, 3rd quarter the ER was 65.2% and UR 5.4%. According to statistical data published by the National Institute of Statistics (INS) Romania and EUROSTAT. It can be noted a decrease in the ER during the financial crisis post 2008 by 3.4% and a slight increase in 2015. After 2015, there was an increase in the number of employed population due to economic growth, but a slight decrease can be noticed since early 2020 following the COVID health crisis -19. (INS Romania and EUROSTAT)

In the primary sector, the population employed in agriculture represented 30.1% in 2010, the secondary sector, industry, was represented by an ER of 28.7%, tertiary sector, services, 41.2% population. In the growth and economic development of Romania, the industry sector remains a fundamental pillar. Increasing the share of the services sector in the labor market as well as in GDP contributes to long-term economic development. (National Commission for Strategy and Forecast)

Following the statistical data for 2010 and 2019 published by the National Institute of Statistics (INS) Romania, there can be distinguished differences in the structure of the WF and structural gaps. For 2019, the ER in agriculture registers a decrease of 9% compared to 2010, reaching 21.2%. There is a decrease of the ER in industry for 2019 by 5.6% compared to 2010, the value being 30.1%. The tertiary sector, compared to 2010, registers an increase of 7.5% of the ER, the value for 2019 being 48.7%. (INS Romania, 2011 and 2020a)

2.2. The structure of the Romania's labour market

Table no. 1 gives an overview of the Romania's economically active population, employed and unemployed, particularly women and urban area, for the years 2010 to 2019. A decrease in the number of persons is observed, due to demographics changes and labour force migration.

Table no. 1. Romania 2010 – 2020– evolution of the Economically active population, employment and unemployed (thousand persons)

	2010	**2014**	**2015**	**2019**	**2020 – 2nd quarter**
Economically active population - total, of which:	9965	9243	9159	9033	8987
- Female	4416	4015	3916	3852	3839
- Urban	5538	5078	5013	4951	4905
Employment - total, of which	9240	8614	8535	8680	8505
- Female	4128	3770	3687	3722	3644
- Urban	5032	4669	4662	4783	4655
Unemployed – total by international definition, of which:	725	629	624	353	482
- Female	288	245	229	130	195
- Urban	506	409	351	168	250

Source: INS (National Institute of Statistics Romania)

Over the period 2010 – 2019, decreasing trends can be observed in the number of economical active people, 932 thousand, a 9.35% difference, and employment, 560 thousand, a 6.06% reduction. Good progress can be observed of the unemployment decline.

Employment rate (ER) – population age 15 to 64 years, for the year 2010 it was registered a 58.8% ER and 7.3% UR, 2015 registered an increase, ER was 61.4% and UR 6.6%, for the 2019 ER was 65.8% and UR was 3.9%, a progress of 7 % over ten years of the ER. Low UR, seen in the table no 1 and percentages listed above, shows that does not imply a high ER. In Romania there is still a significant number of persons among the economically active population that are inactive.

Table no. 2 offers a picture of the Romanian employment market by main activities, according to the data researched from the National Institute of Statistics Romania.

Table no 2. Employment, by main activities of the national economy – Romania
(thousand persons)

Activity (CANE Rev. 2 sections)	**2011**	**2015**	**2019**
Total	9180	8535	8680
Agriculture, forestry and fishing	2450	2184	1844
Industry (total), of which:	1577	1792	1895
Mining and quarrying	73	73	57
Manufacturing	1504	1551	1641
Electricity, gas, steam and air conditioning production and supply	110	82	84
Water supply; sewerage, waste management and decontamination activities	78	86	113
Construction	667	636	715
Wholesale and retail; repair of motor vehicles and motorcycles	1124	1149	1271
Transport and storage	419	475	512
Hotels and restaurants	174	186	222
Information and communication	161	173	178
Financial intermediation and insurance	128	105	116
Real estate activities	19	22	21
Professional, scientific and technical activities	199	185	215
Administrative and support service activities	256	204	227
Public administration and defence; compulsory social security	490	442	419
Education	369	355	359
Human health and social work activities		388	427
Arts, entertainment and recreation	65	57	69
Other activities of the national economy	171	182	190

Source: INS (National Institute of Statistics Romania)

Agriculture, forestry and fishing, manufacturing industry, wholesale and retail and repair of motor vehicles and motorcycles and construction are top four activities in the national economy. A a slight decrease in numbers of people employed can be noticed, the highest change among agriculture, mining jobs, human health and social work. (see table no 2)

2.3. Distortions of the labour market

Mismatch on LM refers to inadequate training, the skills acquired do not match those needed to perform the tasks of the job. The following lines present some mismatches of the LM with the one of professional training, data provided by CEDEFOP.

Mismatch priority occupations for Romania's LM given by the European Centre for the Development of Vocational Training's reports (CEDEFOP, 2020b):

Shortage occupations:

- *ICT professionals*
- *Health professionals*
- *Sales, marketing and public relations senior officials*
- *Financial professionals and legislators and senior officials*
- *Professional services managers*

- *Forestry and related workers*
- *Administration services professionals*

Surplus occupations

- *Market-oriented skilled agricultural workers*
- *Client information workers*
- *Clerks*
- *Retail and wholesale trade managers*
- *Street vendors (excluding food)*
- *Building and housekeeping supervisors*.

Increasing productivity in the agricultural sector through the use of digital technology reduces the ER in the primary sector and the migration of this labour force, often unpaid, living on the brink of poverty, to other branches of the economy.

Among the most vulnerable groups of a society, the youth is also included, because the road between graduating from school and employment has become longer. The lack of skills needed in the current context of the LM and the inadequacy of abilities and competences formed during school with those necessary for employment are causes of rising unemployment among young people.

Youth unemployment represents a major European preoccupation reflected in the policies and strategies adopted by the European Union. The rise of unemployment has long-term negative effects at the individual, family and community levels. Unemployment among young people, 15-24 years old, for 2020 has reached the level of 15.4% in Romania. The causes of rising unemployment among the youth needs a more detailed separate study. (INS RO)

Temporary and seasonal employment contracts predominate in the employment of youth, the consequence being the segmentation of the labor market for young people through the alternation of the periods when they are unemployed or employed. The efficiency and formation of human capital among young people as a means of economic growth cannot be achieved due to this fragmentation of the labor market. (Albu, L., 2012)

Expenditures on social protection are increasing in the context of the extension in the number of unemployed and the dropout rate. These are also the source of the increasing number of people living on the limit of subsistence. The implementation of programs among young people among integrated actions that include apprenticeship, skills training, counseling and guidance can use the potential of the young adults to become integrated into the LM, a sustainable development and beneficial to the individual and society.

3. Research methodology

Research methodology proceeded in literature review of the themes described and data collection.

The purpose of this paper is to identify the trends and the future opportunities and challenges of the Romania's labour market. The hypotheses are that: a low employment rate does not imply a high employment rate; mismatched priority occupations combined with low qualifications cause distortions in the LM.

For the literature review diversified titles, articles, strategy national documents, statistical data published reports were explored, the references' section names them. For an adequate view over the Romanian LM, statistical data was explored, data sets published by INS Romania, EUROSTAT and CEDEFOP, data collection by economical active citizens - employment and unemployment rate, main activities in the economy, employment by CANE sections.

4. Findings

In the coming years, the most significant changes in the labor market will take place in developed and developing countries. The determining factors of these changes are analyzed in several articles that highlight the trends and results of the future work. On the topic of the future of the labor market, the interdependent dimensions of future work the number of available and the

quality of occupations, discrepancy among the remunerations, social protection, employment relations and social communication. (Balliester, T., Elsheikhi, A., 2018)

Millions of jobs are transformed or jeopardized as a result of automation implementation. Other types of professions are created, and the routine assignments are taken over by artificial intelligence. The new careers request non-cognitive and digital capabilities. Among the non-cognitive abilities requested by the employer are adaptation to change, create solutions to problems, willingness to be trained and to learn, work as a team. (CEDEFOP, 2020a)

The environment of the labour market is transformed by economic structures, integration of digital technologies and employment institutions. (Arregui Pabollet, E., et al., 2019)

For Romania, for employment expansion for 2021 – 2030 the forecast stands at 0.90% annual growth. (CEDEFOP, 2020) Detailed projections for Romania period of 2020-2030 forecast job openings, future needs amidst sectors employment growth in table no. 3.

Table no. 3 Sectors employment growth forecast for Romania in 2020-2030, in percents

Sectors	**Increment**
Accommodation & food	42.8
Administrative services	-18
Agriculture, forestry & fishing	-24.5
Arts & recreation	3.9
Construction	12.9
Education	15.3
Energy supply services	7.7
Finance & insurance	23.6
Health & social care	47.4
ICT services	9.8
Manufacturing	6.5
Mining & quarrying	-12.8
Professional services	18.7
Public sector & defence	9.3
Transport & storage	39.2
Water and waste treatment	-17.9
Wholesale & retail trade	30

Source: CEDEFOP, Indicator Future employment growth , CEDEFOP Skills Forecast,

Forecast of the future work by occupations, economy sectors, job openings identified the same issues, mismatched priority occupations alongside low qualifications and lack of needed skills for the job produce distortions in the LM.

Labour force projection for the years 2021 – 2030, the CEDEFOP study reports an annual rate modification of 2.20 % growth for low qualifications, a contraction of 2.20 % for medium qualifications and an increase of 4.10 % for the high qualifications. In table no. 4 it can be seen a major decrease in farm and related workers. The agriculture work is changing on account of adoption of technologies, less manual work, more use of science for weather forecast and bioengineering for productivity. Detailed projections for Romania period of 2020-2030 forecast job openings, future needs by occupation in table no. 4.

Table no. 4 Romania in 2020-2030 - job openings - future needs by occupation

Pillar	Occupations	Number
New/lost jobs	Associate professionals	78,800
Replacements	Associate professionals	141,300
New/lost jobs	Clerks	65,700
Replacements	Clerks	109,800
New/lost jobs	Elementary workers	56,200
Replacements	Elementary workers	222,000
New/lost jobs	Farm and related workers	-452,100
Replacements	Farm and related workers	818,400
New/lost jobs	Managers	14,100
Replacements	Managers	55,300
New/lost jobs	Operators and assemblers	194,300
Replacements	Operators and assemblers	284,200
New/lost jobs	Professionals	453,400
Replacements	Professionals	438,300
New/lost jobs	Service and sales workers	349,900
Replacements	Service and sales workers	378,500
New/lost jobs	Trades workers	-29,000
Replacements	Trades workers	421,400

Source: CEDEFOP, Indicator: Future needs (total job openings) by occupation in Romania in 2020-2030

Romania's labour expansion forcast for years 2021- 2030, leading large segments of the economy: motorized vehicles, land transportation, electrical equipment, residentiary management and comunity service, food and beverages.

Romania's employment growth according to the ocupations, projection for 2021 - 2030:

- *Health professionals*
- *Personal care workers*
- *Legal, social and cultural professionals*
- *Business and administration professionals*
- *Legal, social, cultural and related associate professionals*
- *Street and related sales and service workers*
- *Sales workers*
- *Personal service workers*
- *Food preparation assistants*
- *Assemblers*

There is a qualification deficiency which requests a correlation between economic sectors, professions and skills training. Lack of trained workers causes vacancies among certain professions that cannot be filled. Uneven functions of the economy can occur due to negative impact upon welfare systems and economic progress attributable to long term unemployment.

Increasing the employment rate alongside reducing poverty can be accomplished by investments and flexibility of the labour market. Initial education followed up by skills and professional training is mandatory in the context of the lower request for low skilled jobs. It is mandatory to develop abilities to become a long-life learner as many present jobs will disappear on account of digitalization and artificial intelligence use. Encouraging investment environment is given by socio-economic stability, creative and innovative abilities and qualified human capital.

5. Conclusions

Labor market statistics provide estimates for the future, identifying job opportunities in each economic sector, increase in the number of the jobs demand for a profession or an economic sector, a mismatch in the skills, vacancies and hard to find specialists. The environment of the labour market is transformed by economic structures, integration of digital technologies and employment institutions. (Arregui Pabollet, E., et al., 2019)

It is necessary for Romania to develop a strategy in the field of employment, policies and national reform programs, emphasizing the implementation of those effective measures to increase the potential of the economy, achievement of the proposed targets, including the inclusion of vulnerable people and reducing the number of citizens at risk of poverty, development of a sustainable economy for the benefit of every citizen. Furthermore, coping with changes and foresee solutions applied by the 3Es actors among the LM, the employee, the employer, and the employment organizations.

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Economic Resilience: A Bibliometric Analysis of the Concept

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Abstract

Resilience is a modern concept that reveals the capacity of an entity to respond and to reshape after a shock or crisis. The main purpose of this paper is to emphasize the main literature stream on resilience and economic resilience, in order to better understand this key process during difficult times. The research question is: What are the main approaches of the concept of resilience and how is this concept surprised in the literature? Based on the identified papers concerning the topic of resilience, even if it is a relative new concept that has a great impact on the newest published articles. The research reveals the importance of this characteristics of phenomena, human beings and not only beings, processes and business through bibliometric analysis and literature review.

Key words: resilience, economic resilience, entrepreneurial resilience bibliometric analysis
J.E.L. classification: A10, A19

1. Introduction

Resilience is a modern concept, although it was first used in engineering in the middle of the last century. The evolution of the concept is interesting, because this concept has gone through an obvious and notable multidisciplinary.

Purpose: The main purpose of this paper is to emphasize the main literature stream on resilience and economic resilience, in order to better understand this key process and human characteristics during difficult times.

Methodology: The research aims at answering to the following research question: What are the main approaches of the concept of resilience and how is this concept surprised in the literature.

The tested hypothesis are:

- There are several important changes in the evolution of the concept of resilience.
- There are different understandings on the concept of resilience.
- There is a big interest on economic resilience concept in the scientific papers.

Findings: The papers identifies that resilience, even if is a relative new concept, has a great impact on the newest published articles. A significant interest of scientist on this regard is was demonstrated through a bibliometric analysis.

Added value of the paper is given by the analytical approach of the paper. The research reveals the importance of this characteristics of phenomena, human beings and not only beings, processes and business. The importance is given not only by the resilience effect in real life, but for the interest of scientists and organisations from last decade in describing it and analysing it in different times and spaces.

Paper type: literature review and bibliometric analysis.

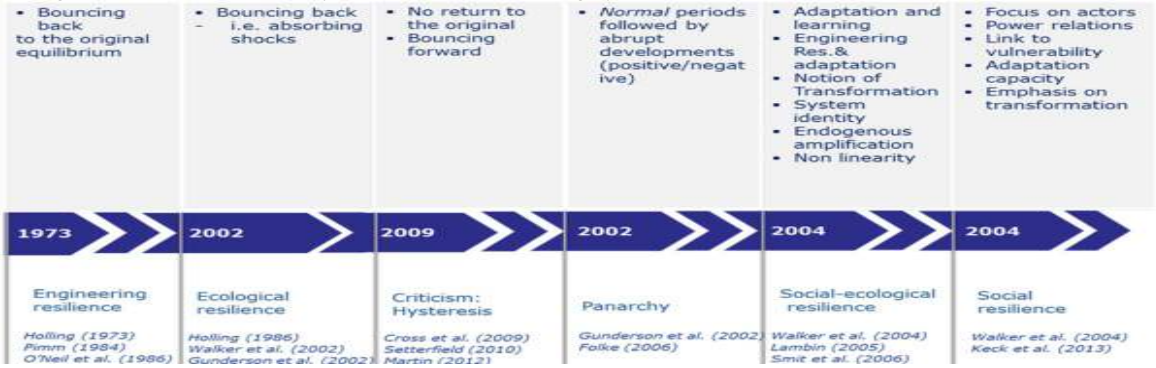
Limits of the study: The present study gathers information only about the main literature stream in the area of resilience concept and methods. The bibliometric analysis refers only the paper indexed

in the Web of Science database in most recent period: 2017-2020. Therefore, the current research may be very well continued with whatever empirical studies.

2. Literature review

Starting the 70s, the concept of resilience has been used during times in different situations and from different perspectives, from engineering to entrepreneurship (Manca, A. R., Benczur, P., Giovannini, E, 2017, pp. 1). The concept is present in technical, ecological, agricultural, social, economics, business administration domains. But it is not a new concept, it came from Latin and generally means "bounce back". Mainly, the resilience means the capacity of an entity to respond and to reshape after such a shock or crisis.

Figure no. 1. The evolution of the resilience in thinking by characteristics



Source: Manca, A. R., Benczur, P., Giovannini, E

The interest of the scientists is absolutely evident: during times, many shock, crisis, tied situations put stress on the social systems, economic systems and, not only. The possibility of all these systems to recover after shocks like floods and earthquakes, wars and pandemics is very attractive for public authorities in order to better adopt public policies and for entrepreneurs to better decide for their business.

Therefore, authors benchmarked concept from one field to another in order to surprise the capacity of the system to recover and to bounce back after stressors or crisis. The interest became more and more intense and there are authors who named the concept a "buzzword" (Staníčkováa, M., Melecký, L., 2018, pp. 232) after it started to appear more and more in the research papers related with shocks and crisis.

Perrings refers to the resilience as the ''capacity of a systems to retain its organizational structure following perturbation of some state variable from a given value'' (1994, p. 30).

Weather it is taken into consideration the idea of bouncing back in some state of equilibrium or the idea of recovering after shocks, Reggiani et al. (2002, pp. 211) conclude that "the two different interpretations (engineering and ecological resilience) advocated in the literature are certainly useful for grasping and deepening the resilience concept".

Thus, one of the approaches is about entrepreneurial resilience, where Korber, S. and McNaughton R. B. (2018, pp 1130-1131) proved that there are several different perspectives: "resilience as a determinant of entrepreneurial intentions, entrepreneurship fosters macro-level resilience, resilience as a response to entrepreneurial failure, adaptive resilience as process of recovery and transformation".

Figure no. 2. The evolution of the resilience in thinking by definitions

Year	Authors	Understanding the resilience concept
2015	Martin and Sunley	Resilience refers to a capacity to withstand or recover from the market, competitive and environmental shocks
2012	Martin	Capacity of the regional economy to reconfigure, i.e., adapt, its structure (firms, industries, technologies and institutions) so as to maintain an acceptable growth path in output, employment and wealth over time
2010	Gunderson et al.	Resilience concept does not necessarily imply a return to the pre-existing state but could be referred to as the capacity to respond to opportunities which arise as a result of the change
2009	Rose	Process by which a community develops and efficiently implements its capacity to absorb an initial shock through mitigation and to respond and adapt afterwards so as to maintain function and hasten recovery, as well as to be in a better position to reduce losses from future disasters
2008	Cutter et al.	Resilience is the ability of the social system to respond and recover from disasters and includes those inherent conditions that allow the system to absorb impacts and cope with an event, as well as post-event, adaptive processes that facilitate the ability of the social system to reorganize, change and learn in response to a threat
2008	Hill et al.	Ability of the regional economy to maintain a pre-existing state in the presence of some type of exogenous shock; the extent to which a regional or national economy that has experienced an external shock can return to its previous level and/or growth rate of output, employment or population
2008	Norris et al.	Process linking a set of adaptive capacities to a positive trajectory of functioning and adaptation after a disturbance
2006	Foster	Ability of the region to prevent, prepare, respond and 'recover' after a disturbance so as not to stand this obstacle to its development
2006	Perrings	Ability of the system to withstand either market or environmental shocks without losing the capacity to allocate resources efficiently
2004	Coles et al.	Community's capacities, skills and knowledge that allow it to participate fully in recovery from disasters
2004	Walker	Capacity of a system to absorb disturbance and reorganize while undergoing a change so as to still retain essentially the same function, structure, identity and feedbacks
2003	Bruneau et al.	Ability of the system to reduce the chances of shock, to absorb shock if it occurs (abrupt reduction of performance) and to recover quickly after a shock (re-establish normal performance)
2001	Carpenter et al.	Adaptive capacity that allows for continuous development, such as a dynamic interplay between sustaining and developing with change
1997	Reich	Structure of relationships among macroeconomic variables that persists over a long period of time and the economic, political and social institutions that condition this structure
1973	Holling	Amount of disturbance that the ecosystem could withstand without changing self-organized processes and structures, defined as alternative stable states, i.e., a measure of the persistence of systems and of their ability to absorb change and disturbance and still maintain the same relationships between populations or state variables
1958	Elton	Resilience as the amplitude of changes brought about by both disturbance and dynamics of post-disturbance recovery

Source: Staníčkováa, M., Melecký, L., 2018, p. 232

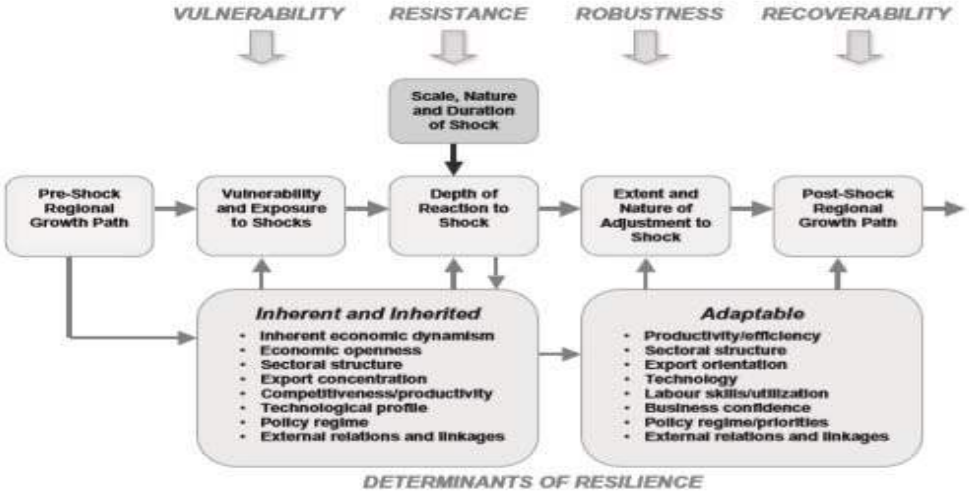
The evolution of the concept is interesting, because this concept has gone through an obvious and notable multi-discipline. Sometimes resilience is very important for entrepreneurial success, and it is on the edge of the exit or escalation decision (Manfield, Newey, 2018). McNaughton and Gray, (2017) discussed about the tendency to focus on the psychological strength of entrepreneurs and managers who face endogenous and exogenous shocks, more likely than to see resilience as a new process than a characteristic. At the same time, there are opinions founded on the following basis: resilience as a factor of economic variability or sustainability of entrepreneurial ventures (Hayward *et al.*, 2010; Jaskiewicz *et al.*, 2015). Still, there is few literature on the common concepts of entrepreneurs and resilience, but more and more articles appear each year, given the importance that the concept receives. For example, modern approaches of entrepreneurial resilience refer to the reactions of the different types of entrepreneurs in the face of the COVID-19 crisis (Ignat and Constantin, 2020). There is not a high interest in research on business resilience (van der Vegt *et al.*, 2015), and, in general business research does not try to demonstrate or even understand the field resilience, but Williams and Vorley (2014) proven the importance that entrepreneurial resilience has in the process of improving resilience of whole community. From this perspective, it becomes very hard to understand why is this lack of interest on the concept, as both resilience and entrepreneurship demonstrate innovativeness, proactivity and flexibility (McNaughton and Gray, 2017).

Thus, Branicki, Sullivan-Taylor, Livschitz, (2018) have proven that small and medium-sized enterprises (SMEs) have pour resilience and a wide range of diverse shocks impacted them differently. This is a very important aspect, given the last four decades economic changes on the global market, based on geopolitical influence, social movements, and reassessments of industries, the IT innovations and even the new coins appearance. According to these approaches, it has a greater significance to better understand the concepts of resilience, entrepreneurial resilience and to carry out research on the SMEs' resilience and their capabilities to surmount any market change, any global influence. Bernard and Barbosa (2016) defined entrepreneurial resilience "as a form of emotional and cognitive ability that is useful for the entrepreneur, particularly when bouncing back after failures connected to their entrepreneurial initiative".

Stepping forward, we may conclude that there are special behaviors in SMEs resilience which is firstly driven by special strategies in this regard (Conz, E., Denicolai, S., Zucchella, A., 2017, pp. 187), moreover it is given by internal values rather than external factors.

Moreover, in regional resilience, as process, there are opinions that put together the concept of resilience with other characteristics such as: vulnerability, shocks, resistance, robustness and recoverability (Martin, R., Sunley, P., 2015, pp. 13).

Figure no. 3. The regional resilience as process



Source: Martin, R., Sunley, P., 2015, p. 13

Regardless of the definition of the concept, resilience is often approached methodologically and structurally differently. There are guidelines for determining and quantifying resilience, such as the OECD (OECD, 2014, pp. 1) Guidelines for resilience systems analysis, but they also do not provide a set of absolute indicators as clear determinants of regional resilience. The situation is still debatable and debated.

3. Research methodology

In order to better emphasize the scientists' interests about the concept of resilience, a bibliometric analysis was carried out. The query performed on the Web of Science database had the following code: *TOPIC: ("economic resilience"), Timespan: 2017-2020*. It took into consideration the topic of economic resilience based on the resources indexed in the Web of Science database, during the most recent period: 2017-2020. The query was performed in order to extract a "ciw" file with all the metadata of the publications concerning economic resilience, with the aim of processing this file in VOSviewer, a specialized tool for bibliometric analysis (Pătărlăgeanu et al., 2020). The "ciw" file contained the metadata of all the 322 publications concerning the topic of economic resilience indexed in the Web of Science database.

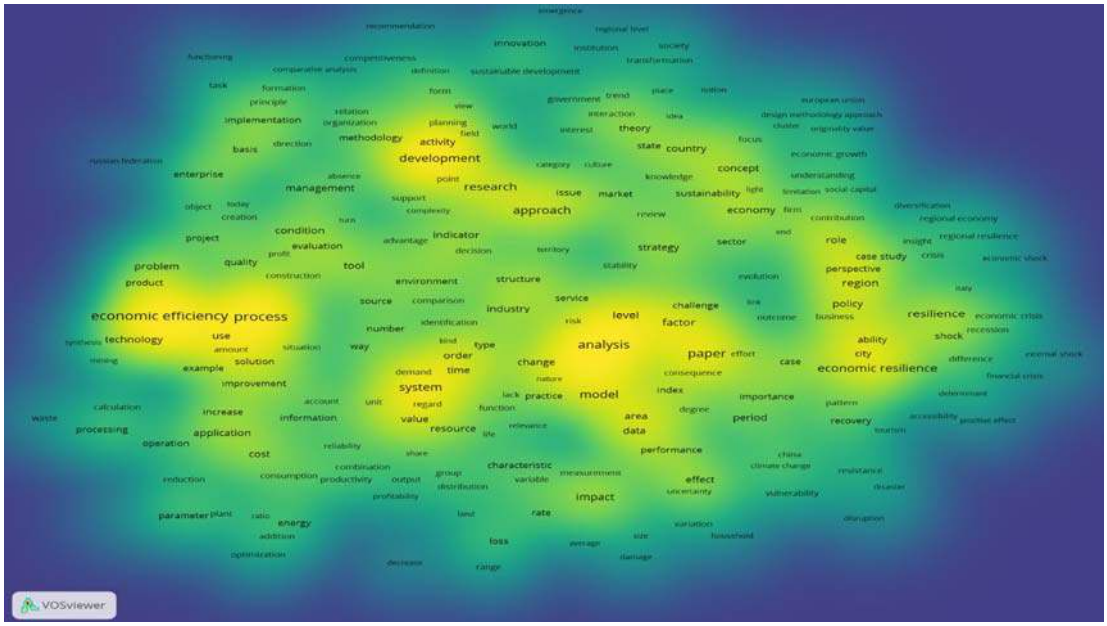
The same methodology was applied in the case the evolution of the links between the keywords and keyword structures previously identified.

4. Findings

When querying the Web of Science database on code: *TOPIC: ("economic resilience")* several interesting results were found.

Figure no. 4 contains the density map of the words and structures associated to the 322 identified papers and it was designed according to the following criteria: Minimum number of occurrences of a word or structure in the title, abstract or keywords of the 322 identified publications: minimum 10 occurrences. Out of the 16,770 identified words and structures, 339 meet the previously mentioned threshold that means 2.02%.

Figure no. 4. The density map of the words and structures associated to the 322 publications concerning economic resilience

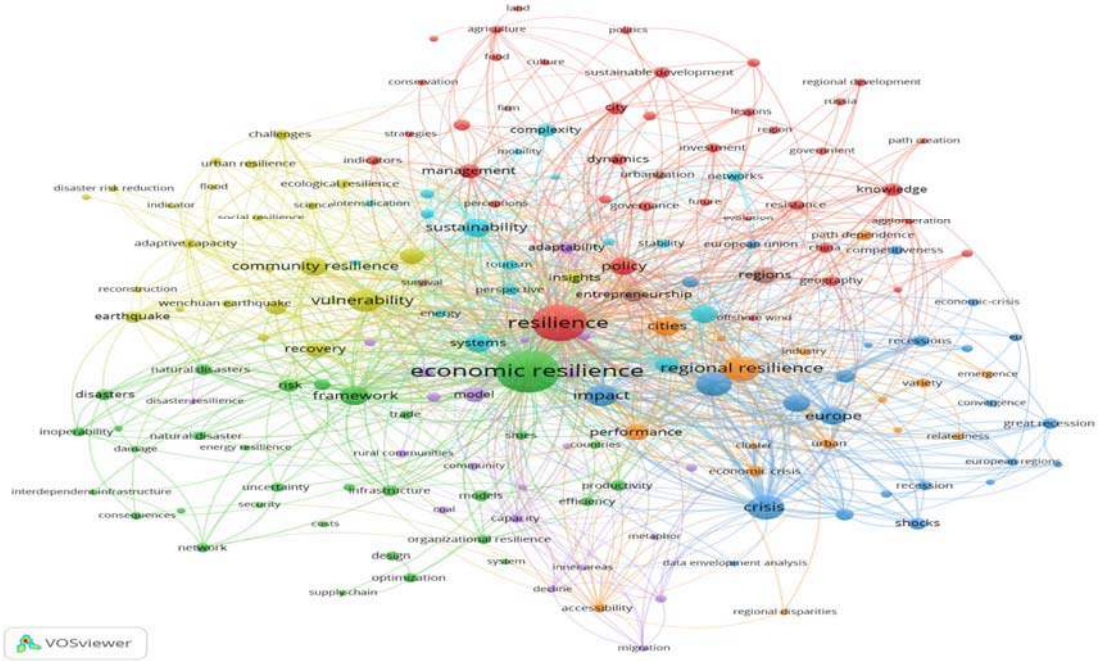


Source: Authors' VOSviewer processing, based on the raw Web of Science data

Figure no. 5 contains the clusters of the keywords and keyword structures associated to the 322 identified papers and it was designed according to the following criteria:

- Minimum number of occurrences of a keyword or keyword structure associated to the 322 identified publications: minimum 3 occurrences in order for the keyword / keyword structure to be graphically displayed
- Out of the 1,659 identified keywords and keyword structures, 175 meet the previously mentioned threshold that means 10.54%.

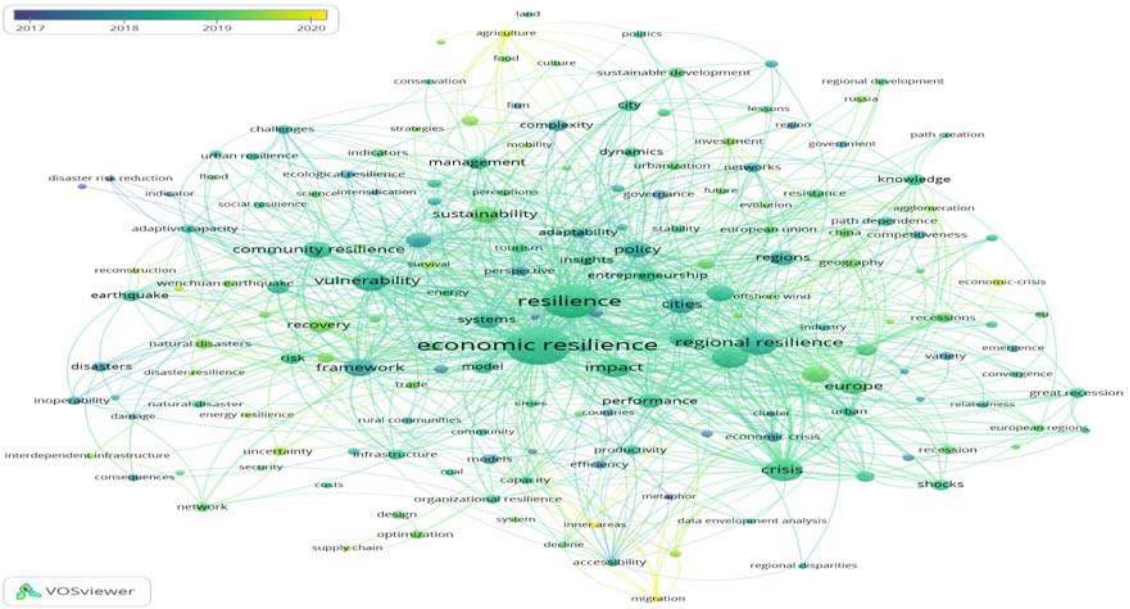
Figure no. 5. Clusters of the keywords and keyword structures associated to the 322 publications that responded to the Web of Science query



Source: Authors' VOSviewer processing, based on the raw Web of Science data

The same methodology was applied in the case of Figure 6, but it contains the evolution of the links between the keywords and keyword structures previously identified in Figure 5.

Figure no. 6. The evolution of the links between the keywords and keyword structures (2017-2020)



Source: Authors' VOSviewer processing, based on the raw Web of Science data

The interest is obvious. The analyzed concept in usually used together with such words as: sustainability, vulnerability, entrepreneurship, recovery, cities, management, community resilience, performance. Therefore, the interest of the scientists in this regard is given by necessity of finding the best solutions for recovering after shocks, crises and not only.

Still, the limit of this analysis consists in the fact that it took into consideration just the economic resilience concept, while the resilience concept is more comprehensive and covers other domains, too. Not only that, but the bibliometric analysis was also carried out only based on the publications indexed in the Web of Science database during the most recent period: 2017-2020 timeframe.

5. Conclusions

The resilience is the new main topic during the COVID-19 pandemic and it is taken into consideration on every stage, person, and entity. But the scientific interest in this regard is new considering the evaluation of thinking, but somehow old, taking into consideration the decades that the concept is being analysed.

The bouncing back and the recoverability of the entity need to be further developed from methodological perspectives.

Yet, the scientist's interest about the resilience and about the economic resilience is huge, and the bibliometric analysis has already proved this.

The hypothesis: There are several important changes in the evolution of the concept of resilience is confirmed by the changes in the thinking of resilience, from technological approach, to ecological approach and social approach.

The hypothesis: There are different understandings on the concept of resilience is confirmed by the fact that resilience is on the one hand the process of bouncing back into a sort of equilibrium, and, on the other hand, is the capacity of an entity to recover after a shock.

The hypothesis: There is a big interest on economic resilience concept in the scientific papers was confirmed by the bibliometric analysis and the important weight of the papers with this topic and keywords.

Therefore, it is expected to have further scientific steps in developing this concept, with so many possibilities to be implemented into real economy and society.

6. Acknowledgement

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Implications of Religious Tourism on the Romanian Tourist Market

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Abstract

At present, religious tourism has an important role on the tourism market because, both nationally and internationally, a significant number of people travel from their place of residence to a specific destination, based on religious reasons.

In order to enter the sphere of religious tourism, the purpose of a person's journey must be closely linked to faith and benefit from the tourist services that are found on the tourist market.

If a person travels to a certain destination without having to do with faith, but out of the desire to visit religious tourist attractions in order to know more, to complete their cultural capital, then it can't be religious tourism, but it is about cultural tourism or knowledge

The purpose of this paper is to identify religious tourism and its delimitation from other forms of tourism and also to establish the role that religious tourism has on a tourist market such as the tourist market of Romania.

Key words: tourism, religious tourism, cultural tourism
J.E.L. classification: L80, L83

1. Introduction

In approaching the concept of religious tourism we must start from faith in God. If there were no faith, it could not be religious tourism, because there would be no religious motivation based on faith as a travel motivation. That is why people who travel with a motivation closely related to faith in God, to participate in pilgrimages or to visit holy places, monasteries, to pray, are part of the sphere of religious tourism.

But we must keep in mind that tourism is an economic activity that involves making a profit. In this case, what is sold is not faith but services that are closely related to the satisfaction of this travel motivation, namely: transport services, accommodation services, catering services.

Consequently, the religious tourist travels from and for faith by purchasing the tourist services necessary to satisfy the main motivation of the trip.

So, we can say that the subject of religious tourism is the religiotourist, ie the person who travels from home to a destination, for a religious motivation, closely related to faith in God.

2. Theoretical background

In tourism theory, religious tourism does not appear as a distinct form of tourism activity. Therefore, religious tourism can be identified starting from the motivation or purpose that underlies the journey of a person who has the status of a tourist. In other words, a person traveling to a religious destination can be included in either the sphere of religious tourism or the sphere of cultural tourism, depending on his motivation.

Depending on the tourist motivation, there are four types of tourist activities, namely: holiday and recreational tourism; cultural and educational tourism; health care tourism and business tourism (Glavan, V., 2010, p.145). We notice that these forms of tourism are based on certain travel motivations, such as cultural or knowledge motivations.

Another motivation for travel through all of recorded history is the religious pilgrimage. Pilgrimages are one of the oldest reasons for travel. Many inns and taverns developed to support

pilgrimage travelers (Goeldner and Ritchie, 2009, p.288). The Middle East is the cradle of three of the world's most prominent religions – Christianity, Judaism, and Islam. Literally millions of people trek to various sites in the Middle East as a form of pilgrimage (Cook et al, 2010, p.306).

In the "Dictionary of Tourist Terminology", Stancioiu considers that religious tourism is a form of tourism practiced for religious purposes to participate in various pilgrimages to visit churches, cathedrals, monasteries or participation in various religious events (Stancioiu, A. F., 1999, p.209).

Other authors (Abargaonitei, S., 2010, p.157) consider that religious tourism consists in the pilgrimages of believers to places of worship, considered holy by different religions. Religious buildings were erected in secluded places for meditation or prayer and became tourist attractions spread across all continents. The buildings with religious function that have entered the tourist circuit are specific to the cults they serve: temples, sanctuaries, cathedral churches, monasteries, mosques, synagogues, mausoleums, cemeteries (Dinu, M., 2002. p.197).

According to other authors, religious events, including pilgrimages, are part of cultural and artistic (Istrate, I., Bran, F., Rosu, A., G., 1996, p.14). Therefore, in order to delimit religious tourism from cultural tourism or knowledge tourism, we must also consider the concept of cultural tourism, because these two notions often intertwine.

Cultural tourism has a mainly formative, cognitive and aesthetic function fulfilled by traveling to destinations with historical and ancient and medieval art vestiges, religious objectives but also scientific, technical and economic (Glavan, V., 2010, p.142). For other authors, cultural tourism involves visiting a tourist attraction or attractive resources with the main function of training through the enrichment of knowledge. (Cocean, P., Dezsi, S., 2009, p.216).

Therefore, in order to highlight the function of knowledge that cultural tourism fulfills, we must take into account the way in which knowledge tourism is defined.

Knowledge tourism is a form of tourism that is not based on natural factors, but on the motivation to know, to enrich the cultural or professional horizon (Stănciulescu G., Lupu N., Tigu, G., Titan, E., Stancioiu, F., 2002, p.179).

3. Research methodology

The present paper has as a method of scientific research the approach of the notion of religious tourism in the different theoretical concepts from the specialized literature and at the same time the analysis of the data using the existing statistical sources at the level of Romania.

4. Religious tourism in Romania

Religious tourism is closely linked to people's faith and the possibilities of its manifestation by going to religious places. If the faith is forbidden then religious tourism can no longer manifest itself. Thus, in Romania before 1990 there could be no question of religious tourism because at that time it was the communist regime.

The existence of the Romanian Communist Party led to the prohibition of the faith and its forms of manifestation, led to the demolition of churches, to the reduction of religious freedom and expression, pursued the implementation of atheism and trust in man and not in God.

Communism aimed at destroying the orthodox faith of the Romanian people, preserved with holiness and passed down from generation to generation. Under these conditions, faith in God could not be freely expressed and it was not possible for people to travel to destinations where places of worship and monasteries were located and therefore it was not possible to talk about religious tourism officially.

Communism failed to destroy the faith of the Romanian people, but on the contrary, led to its strengthening, preservation and manifestation of the faith through religious customs and traditions passed down from generation to generation by the rural population, from the villages.

After 1990, with the establishment of democracy in Romania, the freedom of expression of faith appeared, which led to the journey of believers to participate in various pilgrimages and visit holy places and places of worship, from various internal or external destinations. Thus, religious tourism appeared for the first time, as a form of manifestation of tourist activity.

Table no. 1 Number of tourists in religious pilgrimage areas, organized by travel agencies inside Romania, in the period 2001-2005 (thousands of people)

Year	2001	2002	2003	2004	2005
Tourists	2	4	4	4	13

Sources: National Institute of Statistics, www.insse.ro

Analysis of the data from Table no. 1, indicates the following aspects:

- After the year 2000, the importance of religious tourism on the Romanian tourist market began to be seen and that is why it began to be statistically surprised by pilgrimage areas;
- The number of people who traveled through travel agencies in Romania, in areas of religious pilgrimage, increased in 2005 compared to 2001 by 6.5 times, which is a significant increase due to the emergence of travel agencies specializing in religious travel and pilgrimage.
- Here is a continuous and constant increase in the number of people who are based on this travel motivation and who resort to travel agencies to organize their religious trips.
- These data reflect only a part of the tourist phenomenon on the Romanian tourist market, because besides the tourism organized by travel agencies, there are many people who travel to the areas of Orthodox Christian religious pilgrimage in Romania either on their own or through Orthodox churches.

Thus, in the case of unorganized tourism (on their own), people who travel based on a religious motivation are accommodated in hotel units or tourist or agrotourism pensions in the area without registering the real reason for the trip.

People who travel to these areas of religious pilgrimages, through trips organized by Orthodox churches, are accommodated in monasteries which makes the phenomenon of religious tourism not be highlighted at its true value. It should be noted that if pilgrims are accommodated in monasteries, these accommodation and dining services are services that do not fall within the scope of the tourist market because they are not marketed for a profit. These services are offered in a Christian spirit, with pilgrims donating certain amounts of money to the respective monasteries.

Therefore, in reality the number of tourists who travel based on a religious motivation is very high, given the fact that after 1990 the population began to freely express their faith, which was positively reflected in the freedom of movement and travel to places of pilgrimage.

Table no. 2 Number of tourists in religious pilgrimage areas, organized by travel agencies inside Romania, during 2001-2005

Year	Total Tourists		From which:			
			Cultural Tourism		Religious Pilgrimage	
	Number	%	Number	%	Number	%
2015	430632	100	12377	2,87	3847	0,89
2016	590500	100	25101	4,25	22885	3,87
2017	670428	100	5199	0,77	29052	4,33
2018	959030	100	56873	5,93	30163	3,14

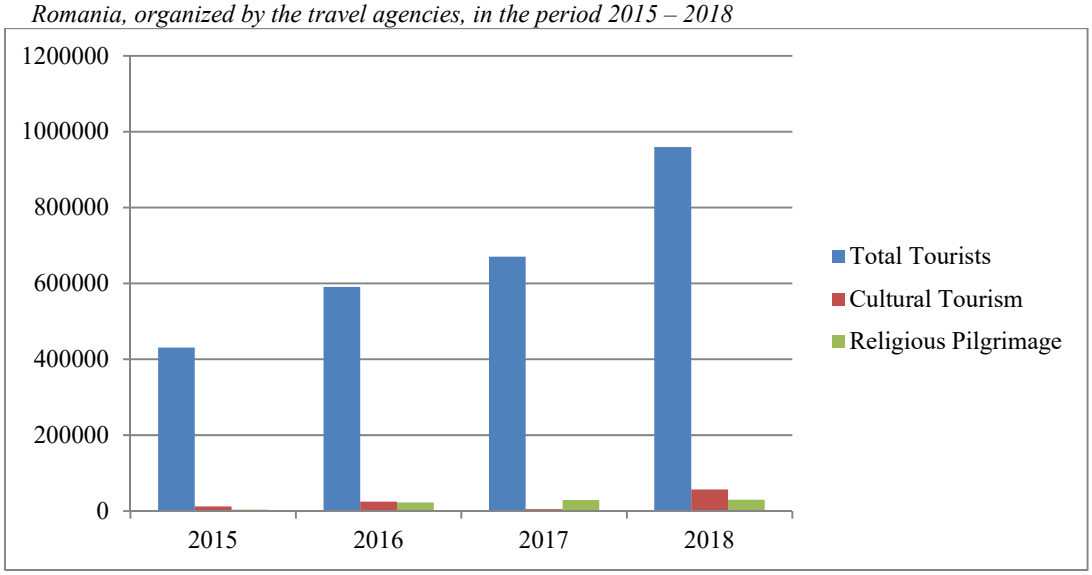
Sources: National Institute of Statistics, www.insse.ro

The analysis of the data from Table no. 2, regarding the number of tourists in the areas of religious pilgrimage, pilgrimages carried out through travel agencies in Romania, highlights the following aspects:

- The total number of tourists who traveled through travel agencies increased in 2018 compared to 2015 by 122.7%, ie 2.3 times which reflects the importance of the development of travel arrangements through travel agencies.
- There is an increase in the number of tourists based on a cultural tourist motivation 4.6 times in 2018 compared to 2015. This increase highlights the interest shown by tourists for cultural tourist trips.
- In the case of religious tourism, there is an upward evolution of the number of tourists who traveled through travel agencies, based on a motivation that takes the form of religious pilgrimages. Thus, their number increased from 3847 in 2015 to over 30,000, which is an increase of almost eight times.

This significant increase (see also Figure no. 1), highlights the importance of religious tourism on the Romanian tourist market, which determined the increase of the offer of religious tourist trips from the travel agencies but also the appearance of specialized tour operators in religious pilgrimages.

Figure no. 1. The total number of tourists, the number of tourists who have a cultural motivation and the number of tourists who have as motivation the religious pilgrimages, participants in the tourist actions in Romania, organized by the travel agencies, in the period 2015 – 2018



Source: Table no.1, National Institute of Statistics, www.insse.ro

Thus, representative for the religious tourism market in Romania is Basilica Travel, which is a tour operator of the Patriarchate of the Romanian Orthodox Church (https://www.pelerinaj.ro/)

The large number of churches and monasteries existing in Bucovina, contributes to the development of religious tourism, offering the possibility of organizing pilgrimages by creating tourist routes that highlight these places of worship and spirituality (Abargaonitei, S., 2010, p.158).

However, although there is an increase in the number of tourists with cultural and religious motivations, their share is small in the total number of tourists (see Figure no. 2):

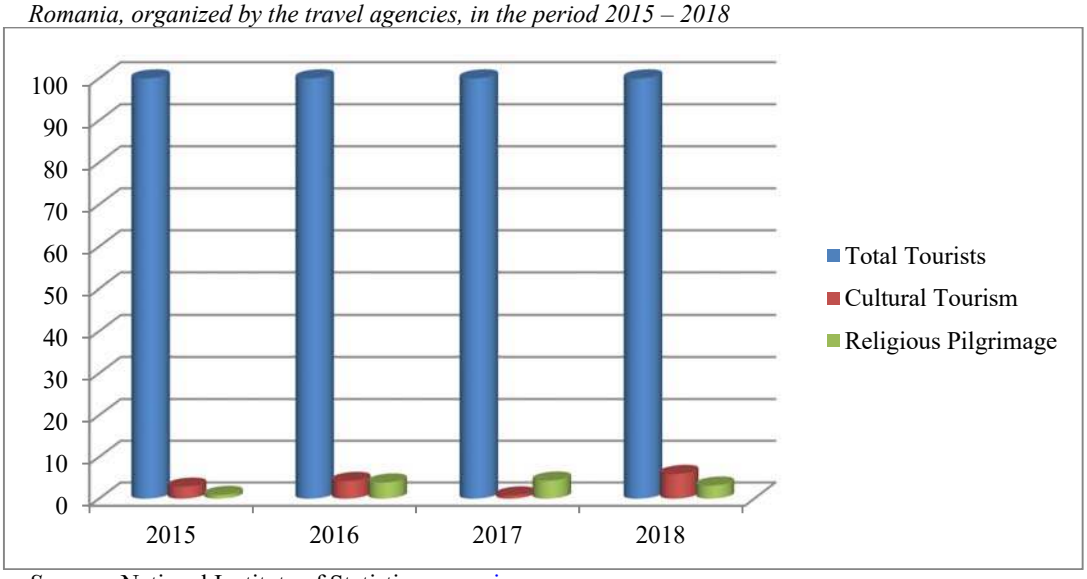
- Within cultural tourism, the share of tourists in the total number of tourists increased from 2.87 percent in 2015 to 5.93 in 2018;
- In the case of religious tourism, the share of tourists whose motivation is religious pilgrimages increased from 0.89% in 2015 to 3.14% in 2018, which highlights its share of the Romanian tourist market.

In the analysis of religious tourism and its importance on the Romanian tourist market we must keep in mind that the number of tourists is actually very high, because in the statistical data provided by the National Institute of Statistics there are no figures on accommodation from monasteries nor to the accommodation places in the tourist reception structures, which accommodate tourists with a religious motivation.

Therefore, as previously mentioned, in reality the market for religious tourism in Romania is very large because most people who travel either go on pilgrimages organized by Orthodox churches, in which case they are accommodated in monasteries or travel on their own to participate in religious pilgrimages or to visit monasteries and places of worship for religious purposes, closely linked to faith in God, in which case these people are accommodated in private boarding houses in the area.

These rural or agro-tourism tourist pensions, whether or not they are part of the tourist circuit, have emerged and developed around monasteries and places where religious pilgrimages take place, offering pilgrims the necessary tourist services, namely, accommodation, food and leisure opportunities, by organizing activities in one's own household

Figure no. 2. The total number of tourists, the number of tourists who have a cultural motivation and the number of tourists who have as motivation the religious pilgrimages, participants in the tourist actions in Romania, organized by the travel agencies, in the period 2015 – 2018



Sources: National Institute of Statistics, www.insse.ro

5. Conclusions

In Romania, religious tourism has a special importance on the tourism market because it contributes to satisfying the main travel motivations by providing specific services to the tourism sector related to accommodation and dining and it also generates jobs in these sectors that provide tourist services for religious tourism.

The religious tourism market does not have as object of commercialization the faith in God, but the provision of the complementary services that derive from this motivation, namely the transport, accommodation and food services.

We must keep in mind that in Romania the incidence of religious tourism on the tourist market has a high intensity, because it interferes with cultural tourism and rural tourism, by capitalizing on religious traditions and customs that generate significant flows of tourists during religious holidays..

At the same time, religious tourism leads to a good use of tourist services for transport, accommodation and catering, because it is not affected by seasonality as in the case of forms of tourism that are dependent on natural resources.

Religious tourism is manifested with a high intensity during religious holidays, but can be carried out constantly by organizing pilgrimages, both in the case of domestic tourism and in the case of international tourism.

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The Services Sector in Romania Under the Incidence of the COVID-19 Pandemic

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Abstract

The services sector is constantly under the influence of many factors that influence it. Such factors can be economic, political, social, legislative, environmental, but they can also be unforeseen factors, such as health crises, which manifest themselves globally. Such a factor is represented by the COVID-19 pandemic that drastically affected the service sector worldwide, but also in Romania.

This paper aims at the incidence of the sanitary crisis of COVID-19 on the services sector in Romania, in order to identify the services that have been negatively or positively affected by this crisis.

Key words: services, COVID-19
J.E.L. classification: L80

1. Introduction

Unanticipated factors are those that can cause major disruptions in economic activity both in a country and globally. Such factors are unpredictable and therefore create major problems in establishing strategies and policies to be followed in order to reduce the negative effects on economic activity. One such factor is the health crisis generated by the COVID-19 pandemic, which has negative effects both nationally and internationally, seriously affecting the services sector as well.

2. Theoretical background

In economic theories are analyzed both the factors that influence the request for services and the supply of services, which act on the services market.

Such factors that influence the demand for services are: income and leisure; service providers; tariffs; demographic factors; psychological and social (Ioncica, 2003, p.173-174; Criveanu, 2007, p.139-140).

Other authors debate the factors that determine the internationalization of services. Thus, Cristureanu (Cristureanu, 2009, p.51; Cristureanu, 1999, p.39) and Hamzescu & Serban (Hamzescu *et al*, 2005, p.58-59) identify the following factors influencing services at the international level:

- assimilation of technical progress
- the extension of use information technology
- inclusion of information in the sphere of traded values
- associating services with goods in the same commercial package

Most services require direct producer-consumer interaction, which is an important factor that influences the form that international transactions with services can take (Bobirca, 2005, p. 86).

Consequently, although in economic theory there are many factors that influence services, so far no health crisis has been addressed triggered by the emergence of a pandemic, such as the COVID-19 pandemic.

3. Research methodology

In order to observe the incidence of the COVID-19 pandemic on the services sector in Romania, the indirect method based on the analysis of statistical data from different institutions such as the National Institute of Statistics and the National Bank of Romania is used.

This research method follows the evolution of different types of services in the Romanian economy during the analyzed period, such as: transport services, tourist services, services for the population, business services and tries to identify the evolution of Romania's international services.

4. The impact of the COVID-19 crisis on the service sector in Romania

In the analysis of services, we must take into account the fact that the provision of a service involves direct contact between the service provider and the service consumer.

The crisis generated by the COVID-19 pandemic had negative effects on services, both internationally and in our country, due to the impossibility of a direct meeting between the service provider and the service consumer. Thus, some services, such as education, financial-banking services, public services, have been transferred to the online environment, which led to the substitution of the direct relationship between provider and consumer, often with negative implications for that service.

But not all services can be provided without the physical presence of the consumer, so transport services, tourism services and other services have been severely affected by this pandemic crisis.

Such an example is the transport service used by people traveling for tourism, to travel outside Romania or to bring visitors to our country.

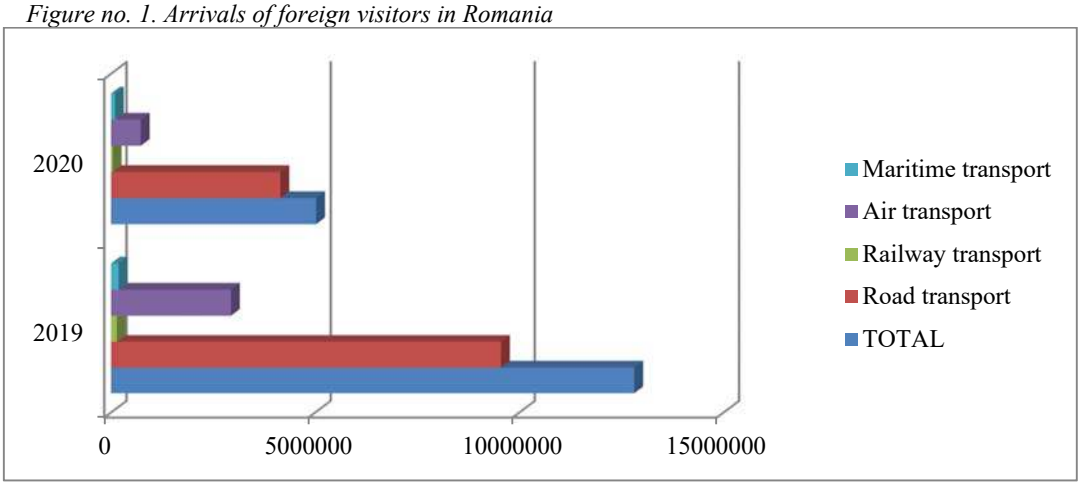
Table no. 1Transport services used for tourist arrivals and departures

Arrivals / departures by type of transport	**Arrivals of foreign visitors in Romania**		**The departures of Romanian visitors abroad**	
	2019	**2020**	**2019**	**2020**
Road transport	9552146	4150797	15790856	6756787
Railway transport	141707	42836	115718	36437
Air transport	2936467	729878	7132213	2693728
Maritime transport	185110	99212	26983	23151
TOTAL	12815430	5022723	23065770	9510103

Sources: National Institute of Statistics, www.insse.ro

If we take into account the data from table number one regarding the tourist transport services and their typology, there is a decrease of 60.8% of the total number of visitors arriving in Romania, in 2020 compared to 2019, due to the COVID-19 pandemic.

Figure no. 1. Arrivals of foreign visitors in Romania

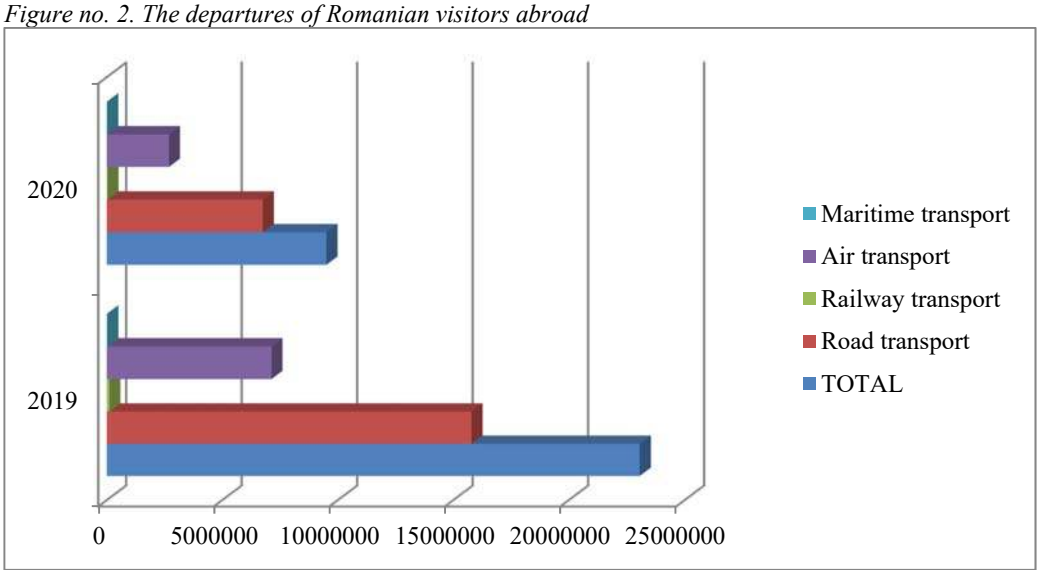


Source: Table no.1, National Institute of Statistics, www.insse.ro

The analysis of the transport services, by forms of transport, highlights significant decreases in the analysed period (see Figure no. 1.). So:

- road transport decreased by 56.5%
- railway transport decreased by 69,7%
- air transport decreased by 75,2%
- maritime transport decreased by 46,4%

Figure no. 2. The departures of Romanian visitors abroad



Source: Table no.1, National Institute of Statistics, www.insse.ro

From the point of view of the departures of Romanian visitors abroad, there is a decrease of 58.7% (see Figure no. 2.). Such trends were also registered in the structure:

- road transport decreased by 57,2%
- railway transport decreased by 68,5%
- air transport decreased by 62,2%
- maritime transport decreased by 14,2%

These data reveal that transport services and travel services for tourism purposes, both inside Romania and outside Romania, were severely affected in 2020 compared to 2019 by the pandemic crisis, generating numerous losses for service providers in these areas but and job losses from such economic activities.

Table no. 2 Romania's international trade in services under the influence of the COVID-19 Pandemic (EURO million)

Types of services	September 2019		September 2020	
	Export	Import	Export	Import
Goods processing services	6968	42	5844	30
Maintenance and repair services	96	77	96	54
Transport services	2047	987	1702	646
Tourism / travel	1049	1587	348	662
Construction services	123	14	141	18
Insurance services	18	50	18	59
Financial services	95	44	72	41
Telecommunications, computer and information services	1380	636	1488	648
Other business services	577	401	575	360
Personal, cultural and recreational services	22	25	22	10

Sources: National Bank of Romania (https://www.bnr.ro*)* https://www.bnro.ro/Raport-statistic-606.aspx

An important aspect that highlights the incidence of COVID-19 on services in Romania is represented by data on international trade in services in Romania in the period 2020-2019 (see Table no. 2).

Thus, the following aspects regarding Romania's exports and imports in EURO, regarding international services, can be deduced:

- The following trends were recorded in exports: in the case of certain services such as goods processing services, transport services, tourism and travel, as well as financial services, there were decreases in the values recorded. Thus, while goods processing and transport services each decreased by 16%, tourism and travel recorded the largest decrease of 66.8%.
- At import, the data analysis indicates the decrease of the values registered for the following services, namely, maintenance and repair services by 23 million EURO, transport services by 34.5% and tourism / travel a decrease by 925 million EURO, respectively by 58.2%

Although there is a significant decrease in these services, however, some services have seen increases due to this crisis, both in terms of exports and imports. So:

- the construction services increased by 18 million euros in 2020 compared to 2019, following export and by 4 million euros on imports
- the insurance services were not affected, registering an increase to imports of 9 million EURO
- the telecommunications and IT services increased by EURO 108 million to exports and by EURO 12 million to imports

5. Conclusions

Following the analysis, it is observed that the largest decreases were registered in the case of certain services, such as transport services, and within them, the most affected are air transport services due to travel restrictions imposed by the pandemic generated by COVID -19.

Tourism services, respectively travel, registered very large decreases both in terms of exports and imports of tourism. Thus, international tourist flows were severely affected, generating numerous negative effects both nationally and internationally.

The negative impact of the pandemic crisis on services in Romania determined:

- Increase of construction services by 18 million EURO in 2020 compared to 2019 for export and 4 million EUR for import
- Affecting the tourist services related to the packages of tourist services offered by the travel agencies (transport services, accommodation services, catering services, leisure services)
- Drastic decrease in revenues from the services sector;
- Reduction of employment and implicitly increase of unemployment;
- Increasing the number of bankruptcies in the case of service providers;
- Increasing the budget deficit;
- Impossibility to satisfy the needs of the consumers of services.

The pandemic generated by COVID-19 had a major negative impact on some services, changing the way they are provided, by eliminating the direct contact between the provider and the consumer (education services, banking services, administrative services). In the case of other services, such as medical services, it has determined the maximum use of the capacity to provide such services.

However, in the case of certain services such as IT services, there has been an increase in the services market, with a positive effect on the degree of digitalization in the provision of services.

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Lights and Shadows at the Level of the Mode 4 of Flows of Services

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Abstract

The assessment of intangible asset flows with a high level of accuracy is still a challenging analytical and methodological issue. Despite the growth in terms of internationalization the share of this flow still remains below the potential that could be exploited. The main purpose of the paper is to analyze the extent to which commitments have been made by the Member States of the WTO, in order to be able to capture the most sustainable operational trends at international level. In order to achieve the highest level of methodological relevance, the author stressed some effects of the challenges arising from current level of globalization. Confirming the hypotheses assumed, the research shows that the issues analyzed have put significant emphasis on securing better commitments on the temporary movement of natural persons, especially for those categories "de-linked" from commercial presence.

Key words: International competitiveness; Mode 4; commitments and derogations; simplified allocation approach; good practices.
J.E.L. classification : O40, O52, O57.

1. Introduction

We live in an age where the relationships between traditional sectors of the economy are changing and new ones are added, intensive in advanced knowledge and creativity, techno-industrial paradigms and development fundamentals are changing, focusing on intangible assets, in which being competitive means something other than a few years ago and in which, thanks to information and communication technology (ITC) in the international trade circuit, all states participate more and more actively but also quasi-totality of the organizational architectures. All these transformations occur at a rate that makes them difficult to manage, the mechanisms under which the supply of goods and services has been planned for several decades are redefined, consumption habits are diverse, users of products and services looking more to maximize their satisfaction. their suppliers assured it. One of the sectors of the modern economy that records a very high dynamics and hosts the most in-depth structural transformations is that of services, which have contributed to increasing the level of tertiarization of economies, this sector generating most of the increase in welfare and providing the most and most attractive jobs.

Although for most of the postwar period, the services sector remained heavily regulated at the national level and the liberalization process was delayed internationally, upon the enactment of the General Agreement on Trade in Services (GATS) at the end of the Uruguay Round of Multilateral Trade Negotiations, some more predictability in this sector has been added as well, the wide range of services being structured in four specific modes of delivery. Although the range of services traded cross-border is heterogeneous, it has a certain harmony in terms of the factors that influence the volume, structure and geographical orientation of flows with these particular economic assets, their features, their development philosophy and their growing role. play as determinants of the new competitiveness.

Economic macrocycles are redefining themselves, both in terms of the succession of their phases and the depth of recession or crisis, the prescriptions prescribed by the relevant schools of thought are gradually becoming inapplicable, the challenges are more and more profound and the capacity of traditional economic systems to adapt was short-circuited deeply.

An analyst of these transformations (Saxer, M. 2017) stressed that in order to orient economic realities towards the new paradigm of socio-human economy, in which the behaviors of societal actors prevail, it is necessary for public policies to focus on aspects such as „ *Level the playing field for human work; invest in full capabilities for all; boost consumption demand through basic income; distribute sources of wealth more evenly; remunerate socially beneficial work*".These changes of dominant logic also concern the services sector, in general, and especially that of the services that GATS categorize in mode 4 of delivery (movement of natural persons).

These are the analytical and methodological foundations from which the author of this paper started, approaching as main analytical vectors: the inclusion of the services sector in the parameters of the new competitiveness; clarifying the main concepts and operational mechanisms in the services sector; highlighting the most complex opportunities but also threats related to the services belonging to mode 4 of provision; analyzing the way in which the member states of the European Union relate to this sensitive subsector of services and briefly underlining the state of affairs existing in Romania more than 10 years after the accession to the demanding European regional economic grouping.

2. Theoretical background

Although we can say that the idea that knowledge has become the main driver of business development is almost a cliché, it is equally true that successful companies are only those that innovate constantly, or have access to continuous innovation, based on new technologies. and attract knowledge, skills and cognitive abilities. Some autors (Calhan, O. Acdag, G. Oter, Z. 2020) define it as „*Possession of knowledge, practical experience, organizational technology, customer relations and professional skills that allow the company to gain competitive strength in the market* ." Nowadays, most authors have established that the structure of intellectual capital comprises three components: human capital, relational capital and organizational capital. Human capital represents the intellectual skills and abilities of individuals, as well as the behavior of members of the organization towards them. Relational or social capital refers to the relationships between people inside or outside companies.

Organizational capital is represented by intellectual property, organizational culture and trust capital in the future of the organization. Following the detailed analysis of the intellectual capital structure, various investment possibilities can be observed so that the company can have strategic advantages. The big trading forces have understood that the resources they have are not enough to achieve global success, so investing in every components of intellectual capital is a strategic investment in competition for markets. Intellectual capital has become such an important resource, regionally and globally, that some states resort to economic measures that are supposed to aim to protect intellectual capital. The component of intellectual capital that is most often controversial is intellectual property and the guarantee of rights over it. Intellectual property refers to knowledge or information that can be incorporated simultaneously into tangible objects in an unlimited number of copies, more precisely the property is in the information or knowledge reflected in those objects. Intellectual property is structured in two main categories: copyright and industrial property; the first category refers to the artistic aspect, and the second to the industrial aspect. The analysis of the literature certifies that even in this way of conducting transactions with intangible assets, aggregate profitability is influenced by the parameters pointed out by a reputable analyst (Michael Porter, 2008).

Regarding that subcategory of services that GATS classify in mode 4 of delivery (movement of natural persons), most participating states to the international trade system have made very few commitments in this area of services provided between residents and non-residents of a given economic territory. Structured concerns regarding the estimation of the structure of service flows according to the way of delivery can be found in Karsenty (2000), Maurer et al. (2008), Magdelaine and Maurer (2008) .. To these can be added the analyzes performed by OECD (2015) or WTO (2016) experts. In addition to the analyzes regarding the size, structure and dynamics of trade flows of services, the studies whose authors dealt with the diversification and growth of the efficiency of the barriers in the way of these trade flows have multiplied. Roy, Marchetti and Lim (2007), Marchetti and Roy (2014). Based on data provided by both the World Bank and the WTO,

it can be concluded that services provided as per the requests of Mode 4 remain one of the most restricted types of services. The arguments in favor of this idea are based on the Services Trade Restrictiveness Index (STRI) developed by the OECD Secretariat. The most sensitive issue remains the existence of a dynamic series of data covering the full range of internationally traded services and ensuring the comparability of the information held. The existence of comparable and relevant dynamic data sets on international trade in services would have as main positive effects improving the negotiating process and clarifying some critical trade policy priorities.

Scientific concerns regarding the delimitation of ways of structuring service flows have been around for a long time, but the best structured schemes for their analysis date back to 1985 (Sampson and Snape. 1985) . A fairly complete analysis of the same issue and find other authors (Marchetti , J. and Mavroidis , p . 2011) that make an interesting comparison between painting him international trade existed prior to the GATS and the future of this moment. An interesting institutional experience in capturing the specifics of the process of radiography of correlations and defining causalities for the international trade picture of service flows is provided by the steps taken at EU level to harmonize methodologies for highlighting and quantifying data at Eurostat. (Rueda-Cantuche, J . Kerner, R . Cernat L . Ritola, V . 2016) One of these authors (CERN, L. 2014) previously proposed to add a fifth mode of performance is the SAS schemes: „*Services embodied in the exports of manufacturing goods"*

3. Research methodology

In this paper the author opted for a mainly phenomenological analysis, and, with the help of the positivist dimension, sought to capture the most representative and useful causal relationships relevant for the analyzed phenomena. In this paper were multi-parameter analyzed few relevant economic phenomena connected to the new competitiveness in the sector of services, especially those belonging to *Mode 4 of delivery,* the most relevant correlations and causal relationship were highlighted, illustrating them both based on the literature and with the help of statistical databases published by, Eurostat, OECD and National Bank of Romania. In this way, the author have tried to correlate the economic effects of transformations to challenges that the European Union has to overcome in a more dynamic but turbulent regional and international business environment.

4. Findings

More and more analysts point out that we are at a time when the factorial picture of international trade is changing rapidly and profoundly. Besides natural resources, capital, the financial intensity of technological and determinants and social or cultural, a growing role in the global economy and intellectual capital lies within its talent and attitude of its owners. Cross-border mobility of human resources is one of the main features of the current international economic picture and, in relation to this phenomenon, the share of trade in intangible assets is growing faster. As highlighted in the latest WTO Report (2019) " *Trade in services creates welfare gains .....through a more efficient allocation of resources, grater economies of scale, and an increase in the variety of services on offer".* Related statistics are relevant for the dynamics of the services sector in recent decades. As a result of the growing openness of all national economies to the external economic environment, the increasing commercialization of services that were not previously traded across borders, the greater elasticity of demand for services to income and the international harmonization of Many national regulations in this field, the growth rate of international trade in services has surpased the rate at which trade in goods, as well as industrial or agricultural production, has increased. Following these developments, the volume of international trade in services exceeded in the year 20 1 9 digits to 15 . 000 billion dollars. This figure should be viewed with caution as a large proportion of international statistics, even the most relevant ones , do not include all four modes of service delivery defined in the General Agreements on Tariffs and Trade (GATS). In recent years, more and more analyzes of the global economic picture, one composed of four sectors (primate, secondary, tertiary and quaternary) have taken into account the statistical asymmetries that persisted for many decades and introduced a growing number of services. part of what makes up Module 3 of service provision, ie transactions with intangible

assets carried out between subsidiaries or branches of large multinational companies. As for the other ways of providing services, the records made in national statistics are getting closer to the real level of transaction volume, which allows to draw conclusions that increase scientific rigor, the accuracy of highlighting the parameters and the correctness of extrapolations made.

The picture of cross-border service flows is one that is in dynamic transformation, bears the imprint of an increasingly diverse range of influencing factors, is increasingly radiographically correct and allows researchers to position themselves correctly both epistemologically and praxiologically. Based on the statistics provided by Eurostat, which capture the economic flows mainly in the European Union but also those collected by the Secretariat of the World Trade Organization and made available to the international community, an analyst can decrypt the messages transmitted by the market , can make multi-parameter evaluations and formulate recommendations for public policy or academic utility. In this paper, the author aims to capture the identifiable lights and shadows at the level of international service flows, insisting on those belonging to Mode 4 of service delivery.

The main challenge for researchers in this thematic area is related to the availability of relevant and comparable information on trade in services as a whole and in trade in services that can be included in mode 4 of their provision. Especially regarding the services of this kind, the available information is relatively scarce and often incomparable in order to allow the highlighting of specific factors, the formulation of articulated ideas regarding the defining elements, the anticipation of trends and the argumentation of conclusions. One of the main difficulties of an analytical and methodological nature concerned the clear delimitation between traditional employment contracts and the taxonomy of activities in the field of international services. From this ambiguity derives one of the main methodological asymmetries that make it difficult to accurately measure the volume of such services, calculate productivity in this sector and determine the contribution of these services to creating added value. Because we do not have robust estimates on this way of providing services, based on existing data we can only conclude that these service flows are in last place with regard to the share of total services traded cross-border. It is not easy to distinguish between t temporary labor mobility and trade in services throught the presence of natural persons (mode 4) . Article I.2 (d) of the GATS defines mode 4 trade as " *the supply of a service by a service supplier of one Member, through the presence of natural persons of a Member in the territory of any other Member* ". Additional explanations on mode 4 could be found in the GATS Annex on the Movement of Natural Persons Supplying Services under the Agreement which states that there are two types of natural persons: those who are service suppliers; and those who are employed by a service supplier.

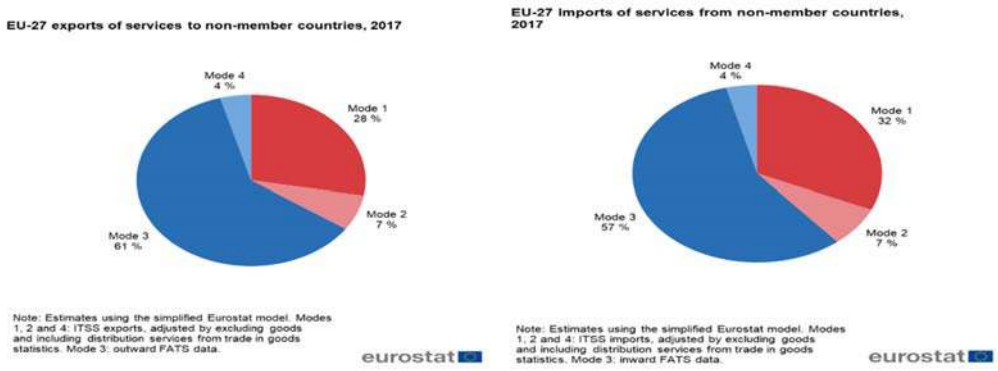
The first type, covers a self-employed person who is remunerated directly for the supply of a service by customers in the host country. There is a slight misunderstanding about what is covered by the second category which comprises " *natural persons of a Member who are employed by a service supplier of a Member* ". In other words, a distinction is made between the natural person and the service supplier.

Although financial and logistics services account for more than 20% of total service flows and ITC-related and research, development and innovation services have the highest growth rates annually, still a number of categories of services, especially those of education, health or related to the environment, remain with very small shares in the equation of this dynamic flow of the international economy. There have also been some good changes in the participation of various groups of countries in international trade in services. Although the share of developing countries has steadily increased in total service flows (25% of total exports and 34.4% of imports) , the least developed countries still have very small shares in this trade flow (0, 3% for exprot and 0.9% for imports). Positive developments that deserve to be highlighted have also occurred in the following areas of service provision: increasing the level of participation of small and medium enterprises; involvement of women in service activities; transforming the service sector into a significant one in terms of providing value-added. International transactions with services become important vectors of sustainable economic growth processes, contribute to increasing the external competitiveness of a national economy and make possible the inclusion of inclusiveness in terms of skills, gender and the location of economic activity.

Among the factors that significantly influence transactions with the most relevant services will be in the future the following: technological progress; regulatory and institutional reforms being implemented in most countries of the world; the volume of investments made in the physical and digital infrastructure of more and more national economies; the steps taken towards codifying competition rules; demographic changes, in particular those related to expanding the percentage of the middle class and enhancing education worldwide; the development of revenues convergence or climate change at regional and global level. Flows of the services traded under the Mode 4 provision were heavily influenced by the dynamic balance between supply and demand. The occurence of an imbalance between demand and supply determinants in most markets reflects the disruption of the demand-supply relationship and the need to recompose the defining vectors for this relationship. The determinants of demand are consumer income, the price of related products, the expected price in the future, the number of potential customers and consumer tastes, all of which are factors that change demand, ie change the relationship between demand and product price. Analysis of the determinants to detect the degree of influence of each determinant. An important factor in market equilibria is consumer income which influences the quantity demanded on the market and in particular the nature of the goods in a market. Consumers generally buy a certain product of a certain quality, and when revenues fall for various reasons, consumers tend to buy goods at a lower price and of a lower quality, thus influencing market stability. The determinants of supply are the price of resources, the price of other goods, technology, the number of bidders, market prospects, the cost of production, taxes and subsidies, and natural and socio-political events.

An interesting picture of export-import transactions with services carried out by the Member States of the European Union can be radiographed taking into account numerous analytical and methodological variables. In this paper, the author proposed to make the analysis having as parameter the structuring of these very dynamic exchanges according to the 4 ways of providing services included in the General Agreement on Trade in Services (GATS). The situation of structuring EU exports and imports of services according to this parameter can be found in Figure no. 1.

Figure no. 1 EU exports and imports towards / from countries outside the EU, broken down by the four modes of supply.



Source: European Union. Eurostat. 2019.

In trade in services, the European Union annually registers very large trade surpluses, in 2018 it will be 242 billion euros. If we analyze the structure of transactions with services on the 4 modes of provision, we will find that the most significant excess is reported is reported in the case of services belonging to mode 3, which counts for more than 90% of the total trade excess. Mode 1 of the provision of services registered a trade deficit. Modes 2 and 4 for the provision of services also have surpluses, but they have quite low levels, mode 2 with a smaller surplus and mode 4 with a slightly more substantial one of 18 billion euros.

The statistical data show that the participation of each major class of services in the whole trade in services carried out by the Member States of the European Union is quite different, the largest share being held by the services related to mode 3 of service delivery (movement of natural persons

which contributes 61% of exports and 57% of imports. By subcategories of services, the structure of imports is as follows: the subcategory of other services holds 27%; transport services hold 20%; telecommunications and information technology services 17% and financial services 11%.

We can also get an interesting picture if we analyze the participation of the differents Member States of the European Union in international trade in services. In the way of providing the most representative services for the European Union, mode 3, the best represented in export are countries such as France, Italy, Germany and Sweden and in import we find as well positioned countries such as the Czech Republic, Romania, Slovakia and Bulgaria. Per each of the EU Member States, the representation of the 4 specific ways of providing services is very different for both export and import. This situation is strongly influenced by factors such as: the level of tertiarization of the economy (the percentage of the services sector in GDP structure); the distinct stage of co-commerciality of the diverse categories of services in the EU Member States; technological intensity for the economy as a whole and especially in the service sectors; different expertise at the level of companies whose object of activity is the provision of services. Mode 4 of service delivery, which groups a smaller volume of total services exported or imported by EU Member States, is found with more significant export shares in countries such as Malta, Poland and Romania (over 10% of total services). exports). Regarding imports of services belonging to mud 4 of the provision of services, both from Member States and from non-EU countries, the best placed as a percentage of total service transactions are Romania (12%) Malta and Poland (11%) and Estonia and Slovakia (10%).

Table no. 1. Status of Romania's transactions with certain services belonging to Mode 4 of provision (Eur million)

Nr. Crt.	Type of services	2019 (January-September)			2020 (January-September)		
		Export	Import	Net	Export	Import	Net
1	Research and development services	219	538	-320	309	267	41
2	Professional and management consulting services	1785	1094	693	1657	1072	586
	▪ Legal, accounting, management consulting, and public relations services	1227	724	501	1078	709	369
	• Legal services	92	34	59	79	35	46
	• Accounting, auditing, bookkeeping and tax consulting services	233	93	139	211	78	131
	• Business and management consulting and public relations services	901	600	301	787	595	191
	▪ Advertising, market research, and public opinion polling services	561	3370	192	580	363	218
3	Technical, trade-related, and other business services	2041	1931	112	2104	1946	258
	▪ Architectural, engineering, scientific, and other technical services	1003	466	536	1007	441	566
	• Architectural services	6	6	4	0	5	0
	• Engineering services	513	122	391	515	97	418
	• Scientific and other technical services	479	341	140	488	338	151
4	PERSONAL, CULTURAL, AND RECREATIONAL SERVICES	56	75	-18	63	41	20

Source: National Bank of Romania. Statistics, 2020

The analysis of the data contained in the tables shows that, in the last two years, Romania registered positive developments in all categories of such services in terms of trade balance, which was in surplus with only two exceptions. Due to developments related to the COID 19 pandemic, in 2020 the volume of these transactions decreased but not at the same pace as the transactions related to other important categories of services, especially those related to modes 1 and 2. That transactions with these types of services are less sensitive to the manifestation of extra-economic phenomena.

Therefore, it is recommended that public authorities continue the process of structural deregulation and support of private entrepreneurs to focus on these categories of services but also entrepreneurs must identify opportunities in this complex sectoral area, to organize in order to prioritize and seize the opportunities identified and equip themselves with the means and operational mechanisms with which to achieve European and international competitive success.

5. Conclusions

The analyses performed within these researches proved that transformations occur at a rate that makes them difficult to manage, the mechanisms under which the supply of services has been structured for many decades are redefined, consumption habits are different, users of products and services looking more to maximize the satisfaction their suppliers promised it.

It becomes more obvious that the main analytical drivers of services available under the umbrella of Mode are: the integration of the services sector in the standards of the new competitiveness; explaining the main concepts and operational devises in the services sector; highlighting the most complex opportunities but also threats related to the services belonging to mode 4 of provision; analyzing the way in which the member states of the European Union relate to this sensitive subsector of services and briefly underlining the state of affairs existing in Romania more than 10 years after the accession to the demanding European regional economic grouping.

Transactions with services belonging to mode 4 of provision are less sensitive to the manifestation of extra-economic phenomena. Therefore, it is recommended that public authorities continue the process of structural deregulation and support of private entrepreneurs to focus on these categories of services but also entrepreneurs must identify opportunities in this complex sectoral area, to organize in order to prioritize and seize the opportunities identified and equip themselves with the means and operational mechanisms with which to achieve European and international competitive success.

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The Damage Caused by Anticompetitive Practices. Effective Methods and Techniques of Quantification

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Abstract

Analyzing the impact of competition policy, the effects of anti-competitive practices and the decisions of competition authorities is a constant concern. Thus, public authorities, and especially competition authorities seek to justify the use of public resources to promote competition policy. Business representatives and international bodies seek to standardize competition rules so that they do not harm business development and others.

In this regard, there are several methods and techniques applied to quantify the harm caused by anti-competitive practices, the economic effects of competition policy and the intervention of competition authorities proposed by the European Commission, the OECD, competition authorities in several countries, and the academic environment. The efficient analysis and quantification of the impact of anti-competitive practices are crucial in the regulatory process, being the premise of making the right decisions. The paper presents the classification and application of assessing methods for anti-competitive practices to determine the damage caused by them.

Key words: anticompetitive practices, damage quantification, competition policy
J.E.L. classification: D6, D7, C1

1. Introduction

The identification and assessment of the effects of anti-competitive practices on the economic environment start from the presumption that these actions of the undertakings restrict competition or affect the benefits that can be brought to the economy through competition. Anti-competitive practices have as an object or effect the restriction of competition, so the effects generated by anti-competitive practices are opposite to those generated by competition.

Competition is a process that has tangents with multiple sides of economic and social life, respectively its restriction has multiple and complex repercussions. The beneficial role of competition for the economy is accepted by economists, and free competition is accepted as a fundamental principle of the market economy. At present, it is impossible to imagine the economic policy of a state in the absence of a competition policy. The application of competition rules, including combating anti-competitive practices (anti-competitive agreements and abuse of a dominant position) aims to protect and support competition. This can ensure improved economic performance. This includes promoting economic growth; using business competition as a way to stimulate the development of new products and services; increasing productivity and reducing costs so that firms and individual sectors and the economy as a whole work more efficiently, to stimulate innovation and, ultimately, to benefit consumers, both intermediate consumers and end-users.

The effective application of competition policy and its development concerning market conditions require the application of analytical tools and their evaluation. Quantifying the negative effects of anti-competitive practices in this context is very important. Several studies have been carried out in this direction and efficient methods of quantification have been established, with a high

level of informativity. In the following, a synthesis of methods and techniques for quantifying anti-competitive practices is presented.

2. Theoretical background

The European Commission, the OECD, competition authorities in several countries and academia have proposed several methods and techniques that would quantify the damage caused by anti-competitive practices, the economic effects of competition policy and the intervention of competition authorities.

The study on assessing the impact that competition policy has generated in the Romanian economy in the period 1995-2015 (CC, 2017) conducted within the project coordinated by Professor Eduard Dinu was the first national research conducted in Romania and was a real methodological challenge. The impact assessment of competition policy was carried out both on a microeconomic scale and a macroeconomic scale. The study presented and analyzed the benefits of competition in terms of consumer welfare, increasing productivity and competitiveness of Romanian enterprises, stimulating efficiency and innovation.

3. Research methodology

The study used combinations of both quantitative and qualitative methodologies, which ensured a higher level of relevance of the determinant data. The following quantitative methods were used in the study: determining the savings generated to consumers both on the microeconomic path, but also at the macroeconomic level, regression analysis, and macroeconomic modelling to capture the impact of competition policy at the macro level.

The benefits brought to the society justifies the competition policy implementation, consecutively the limitation or restriction of the competition brings prejudices, which are to be analysed to quantify their effect. The study conducted for the European Commission by the consulting firm OXERA (OXERA, 2009) presents a classification of methods and models for assessing the bias of anti-competitive practices by dividing them into three main groups: comparison-based approach, financial performance-based approach and approach based on the market structure. This classification makes clear distinctions between counterfactual basis and estimation technique in each method.

Figure no. 1. Classification of methods for assessing the damage caused by anti-competitive practices

<table>
<tr><td rowspan="2">Approach</td><td colspan="3">Comparison-based approach</td><td colspan="2">Approach based on financial analysis</td><td>Approach based on market structure</td></tr>
<tr><td>Transversal</td><td>Time series</td><td>Difference in differences</td><td>Financial performance</td><td>Financial instruments</td><td>Models of industrial organization theory</td></tr>
<tr><td rowspan="6">The counterfactual basis</td><td>Markets</td><td>Before and after</td><td rowspan="3">Enterprise, market or country before and after</td><td colspan="2">Comparison of enterprises and branches</td><td>Oligopol Cournot</td></tr>
<tr><td>Enterprises</td><td>Ongoing and after</td><td colspan="2">The cost of capital</td><td>Oligopol Bertrand</td></tr>
<tr><td rowspan="4">Countries</td><td rowspan="4">Before, ongoing and after</td><td rowspan="4">Plus cost</td><td rowspan="4"></td><td>Monopolistic competition</td></tr>
<tr><td rowspan="2">Perfect competition</td></tr>
<tr><td>Auctions</td></tr>
<tr><td rowspan="3">Technique</td><td rowspan="2">Compared to the average</td><td>Compared to the average</td><td rowspan="2">Compared to the average</td><td>Profitability</td><td rowspan="2">Update</td><td rowspan="3">Elaboration of the structural model of the competition and estimation of the parameters</td></tr>
<tr><td>Interpolation</td><td>Event studies
Evaluation</td></tr>
<tr><td>Intersectional econometric analysis</td><td>Econometric analysis of time series</td><td>Regression analysis</td><td>Bottom-up product cost analysis</td><td>Discounting</td></tr>
</table>

Source: (Oxera, 2009, 44)

Each of the three approaches in the classification can be used to quantify damages for any type of antitrust infringement. They are not mutually exclusive and can be completed.

- Comparison-based approaches. They use data from sources outside the infringement to estimate the counterfactual. Broadly speaking, there are three different ways to do this:

1. Through cross-sectional comparisons (comparing diverse geographic or product markets);

2. Comparisons between time series (analysis of prices before, during and/ or after a breach); and

3. Combining the above two in the "difference in difference" models (e.g., analysing the price variation for a cartelized market over time and comparing it with the price variation in a non-cartelized market over the same time). To analyse these comparative data, one uses various techniques from comparison media to regression analysis.

- Approaches based on financial analysis. These models have been developed in the theory and practice of finance. They use financial information about the compared companies and industries, benchmarks for profitability rates and cost information to estimate the counterfactual. There are two types of approaches to use this information. First are those who examine financial performance. These include assessing the profitability of companies that have committed anti-competitive practices and those that have suffered and comparing them with a benchmark; event studies on how stock markets react to information; and bottom-up product cost analysis to estimate a counterfactual price for them. A second type is a group of more general financial instruments, such as discounting, updating and evaluation.

- Approaches based on market structure. Based on the theory of industrial organization, using a combination of theoretical models, hypotheses and empirical estimations (rather than comparisons on markets or overtime) to arrive at an assessment of the counterfactual situation. This approach involves identifying the best suitable models for the relevant market and using them to provide insight into how competition works in the relevant market and to estimate the counterfactual price (or volumes).

4. Results

4.1. Methods and techniques used to assess the impact of decisions on anti-competitive practices

In the opinion of OECD experts, the methods and techniques used to assess the impact of competition authorities' decisions on anti-competitive practices can be divide into methods:

- based on the comparison;
- based on market structure;
- qualitative methods: surveys and interviews (OECD, 2016)

Comparison-based methods

Comparison-based methods use data from actual market transactions or periods when not affected by the decision under review to construct the counterfactual scenario and to compare it with actual market developments affected by the anti-competitive practice. These methods can be based on:

•'before and after' approach - comparisons of changes in the affected market before and after the competition authority's decision;

• transverse approach - comparisons of changes in the affected market after the decision with the changes that took place in a comparable geographic or product market, which were not influenced by the decision;

• differences perspective- comparisons of changes in the affected market before and after the decision with changes that took place during the same period in a comparable market, which is not influenced by the decision.

Simple graphical analyses makes these comparisons or, in a more sophisticated way, the regression techniques. Graphical comparisons do not allow the concomitant analysis of other factors that could have contributed to the determination of the identified changes. Regression techniques, on the other hand, have more accurately identified causal effects. Similarly, graphical comparisons do not allow accurate estimation of effect size, while regression techniques can provide results that are more accurate. At the same time, this accuracy depends on the quality of the analysis performed.

Therefore, any analysis based on these methods, graphical or quantitative, should be better accompanied by other qualitative analyses that help to identify all possible explanatory factors that

should be included in the analysis and confirm that these changes in the effects of practices anti-competitive law and the decision of the competition authority.

The *'before and after'* method consists of comparing one or more variables on the affected market before and after an event, committing anti-competitive practice and taking the decision of the competition authority. The basic assumption is that if the event had not occurred, the situation on the affected market would have remained the same in both periods.

Similarly, a *cross-sectional approach* compares variables after the event in two geographic or product markets, assuming that any shock, other than anti-competitive practice that could have affected one market, would have affected the other in the same way.

These approaches implements' by simply comparing the average value of the relevant variables between the two periods or on the two markets.

The "before and after" method is widely used to assess the impact of cartels on prices. The time used can be:

- the period in which the cartel took place and the previous period (practically "before and during");
- the period during the cartel and the period after (practically "during and after");
- all three periods ("before, during and after")

The selection and use of the method depend on the availability of data and resources and the period that ensures a better approximation of the long-term competitive balance in the market. It is often difficult to determine precisely when the cartel started and when it stopped. The end date can be particularly problematic because, even when discovering and fine the cartel, businesses can continue tacitly coordinate behaviour. Therefore, for an accurate estimate of the effect of a cartel on price, it is important to use as a reference to the period in which the price considered competitive.

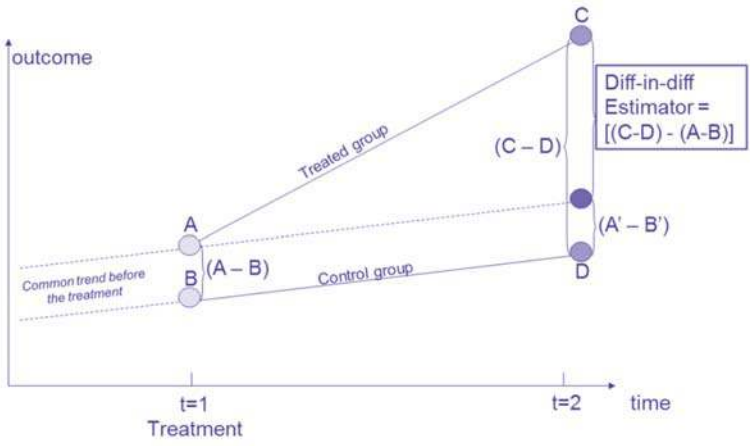
The difference method determines the effect of anti-competitive practice and competition authority decisions by comparing how the key market variable changed in the market affected by anti-competitive practice concerning the same variable in a market not affected by anti-competitive practice ("control" market).

The effect of the anti-competitive practices and the decisions of the competition authority derives from:

- The average difference between the behaviour of the affected market, before and after the intervention, and
- The average difference between the control market behaviour, before and after the decision.

Therefore, the Difference Method approach involves a crosscutting dimension (Affected Market vs. Control Market) and a time-varying dimension (before infringement vs. after finding anti-competitive practice). The presence of these two dimensions leads to a double difference, which allows only the changes caused, by the anti-competitive practice and the decision of the competition authority to be identified, if the control market has been properly selected.

Figure no. 2 Assessing the economic effect of anti-competitive practices based on the differences method



Source: (OECD, 2016,48)

The figure above shows that the method used compares the difference between the variables analysed in the affected market (A) and the control market before intervention (B), with the difference between the same two markets after the intervention (C-D). This difference [(C - D) - (A - B)] reflects the effect of the change in the variable because of anti-competitive practice. This result relies on the assumption that in the absence of anti-competitive practice, the difference would have remained constant over time (A'-B '= A-B).

The Differences Approach allows measuring the effect of an anti-competitive practice and the competition authority's decision with more certainty than an approach based only on a before and after analysis or on cross-sectional examination.

The essential condition for using the Differences Method is the existence of an adequate control market. This condition meets when:

- The differences between the affected market and the control market are stable over time,
- Both markets are equally affected by the same supply and demand shocks (not only the same distresses, but to the same extent) - the so-called "common trend hypothesis", and
- Anti-competitive practices did not influence the control market.

A way to check whether a control market meets the requirements is to check how the two markets behaved - meaning what the trends were - one or even two periods before the one used in the analysis.

The main obstacle to face when using comparison-based models is the need to find an appropriate control group, as the reliability of the results depends on the fact of correctly selecting. In the case of the "before and after" approach, the affected market before the anti-competitive practice and after the intervention of the competition authority to stop it represent the control group. This choice is valid if it can reasonably be assumed that, in the absence of anti-competitive practice, market conditions would have remained the same. For the difference-based approach, we need to identify a comparable geographic or product market that is not influenced by anti-competitive practice and the decision of the authority.

These approaches can be used to assess the impact of anti-competitive practices and decisions of competition authorities that lead to a change in market conditions: without a change, a comparison is not possible and the effects cannot be assessed. Therefore, they can be used to evaluate economic concentrations (with or without corrective action), cartels and decisions to put an end to abusive practices or anti-competitive agreements.

4.2. Methods based on market structure (economic simulation)

Market-based methods are grounded on a model of market competition, which structurally reflects both the demand and supply side of the market, as well as a concept of equilibrium, namely the type of competitive conditions governing the markets concerned. Once the structural parameters of the model - in general, the elasticity of prices from the perspective of demand and the costs / technological parameters from the perspective of supply - are identified and measured, they can be used to simulate alternative market scenarios.

The three main elements of the simulation are:

- Specifying the relevant economic model: demand, supply and equilibrium conditions;
- Estimation of structural parameters: demand elasticity and cost parameters;
- Calculating the counterfactual balance based on the chosen economic model and the estimated structural parameters.

These steps may involve a different level of complexity. The business model can range from a straightforward structure. For example, a simple static model with a homogeneous and linear demand in which companies compete after Cournot - to a more complex and sophisticated model with differentiated goods and dynamic elements, such as inertia/consumer dependence or supplier change costs, as well as, in terms of supply, dynamic business decisions on investment, innovation or learning.

The balance concept can also vary. The estimation of important parameters relevant for these theoretical models can be done by different methods: from surveys and interviews conducted by major market players, from calibrations based on other studies analysing similar markets, from econometric estimates of a complete structural economic model of demand, and offer, based on market-specific data.

The last step is to simulate counterfactual scenarios. Here, one needs to identify what alternative decision could have been made. The accuracy of this ultimate step strongly depends on the quality and complexity of the first two steps. Only a rich economic model allows the simulation of complex counterfactual scenarios.

The data requirements for the use of simulation methods vary and depend, in particular, on the specific choice in the estimation stage. The necessary data, especially quantity data, are not always easily accessible for all types of markets. Therefore, the availability of the required information may be a significant constraint for the application of this method.

Most existing studies assume that the products sold on the relevant market are differentiated. According to this assumption, two main approaches have been developed to provide a microeconomic basis for *market demand analysis:* 1) random models of definite utility, or 2) the model of representative consumers.

The first approach places the goods in the space of characteristics. Therefore, consumers consider a good as a package of features. Heterogeneous consumers may appreciate these characteristics differently and could gain a specific benefit from consuming each of them. The parameters that weigh how each consumer assesses each detail are the main parameters of the model that determine how consumers substitute between goods, meaning the elasticity of their demand and the cross-elasticity of request.

The model of representative consumers is based on preferences for variety. The demand curve derives from a utility function maximized by the representative consumer and the marginal utility in the consumption of each good. The reason why goods are differentiated is included in the parameters of the utility function, which are the key element in determining the elasticity of own demand and the cross-elasticity of demand.

Typically, these assumptions about the utility function of the consumer are coupled in a multi-budget utility maximization model, in which consumers care about the utility of different groups of goods (e.g., food and clothing) and use a price index (justified) to make choices within the group. The products are then divided into small groups and a flexible functional form is allowed within each group. To apply this type of template, the utility must be separated into groups. At the lowest level (generally the market under consideration), the demand for a good depends on the prices of the goods in the group, conditioned by the total expenses of the group. The applications of this approach are more limited, but they are a valid alternative to discreetly chosen application models.

Structural demand estimation is also essential for supply estimation, as own price elasticity and cross-elasticity are essential elements of any imperfect competition model. In general, in many empirical models, static models of oligopoly competition represent supply. The logic of these models is the following: when the price of a product increases, the demand for all other alternative products increases, so consumers replace the product that has become more expensive with other alternative products.

The new equilibrium prices can be simulated using the estimated parameters related to demand and supply along with the assumed economic model. Market shares, the change in consumer welfare and the profit of producers, would result from a modification in market structure or any other change due to anti-competitive practices and decisions of competition authorities. The economic model provides the equations of demand and conditions for each product, as well as the concept of equilibrium. The estimation step provides values for the key parameters of the business model. The simulation contains an impromptu change of a parameter in the model.

The simulations can be used to assess the economic effects of anti-competitive practices and their decisions by competition authorities.

4.3. Qualitative methods: surveys and interviews

Surveys and interviews represent a way of requesting data from market players and industry experiences on how the market has evolved following a decision of the competition authority on anti-competitive practice.

Surveys and interviews may also be conducted to gather information on market development, as well as the views of informed parties on the impact of the decision. These views can then be verified, analysed and confronted, along with available information, and used to determine the effects of a decision.

Therefore, surveys and interviews can only be used as a source of data or can lead, on their account, to a quantification of the impact of the competition authority's decision, although they cannot provide certainty as to the causal link of the identified effects or the precise quantitative dimension of these effects.

However, surveys and interviews have the advantage of determining the impact of the decision on market variables, which are usually difficult to obtain from the application of quantitative methodologies. For example, they help to determine whether the decision has had an impact on the quality, variety or the level of innovation.

A survey, as a set of interviews, involves collecting data from market players and people who know the relevant market. These may include:

- Companies that merge or commit competitive infringements;
- Buyers of goods or services on the market affected by the decision;
- Competitors of companies that join up or have committed competitive infractions;
- Suppliers of companies that merge or commit competitive infringements;
- Distributors of companies that unite or have committed competitive violations;
- Industry experts.

The choice of these groups to include in the survey/interviews can only be determined on a case-by-case basis, depending on the information and data they wish to obtain, the nature of the decision, the characteristics of the market, as well as many other factors. Often, different information must be requested from each group of respondents.

Some preliminary market information is required to design and administer a survey/interview. The pivotal required information concerns the size, composition and main characteristics (for example geographical distribution) of the target population. This information is necessary for determining whether the entire population can be covered by the survey, or for selecting a representative sample. It is also needed to understand the mechanism of the market and how it has evolved.

Data and information obtained through surveys and interviews should be verified for their internal coherence and correctness in conjunction with the collection of publicly available information. Survey responses are inevitably not as accurate as actual behaviours.

5. Conclusions

The approaches used to assess the impact of competition authorities' decisions on anti-competitive practices bases on different techniques and sources of information but serve the same purpose. Each of the approaches can be used to quantify damages regardless of the type of violation and can supplement each other. The choice of evaluation methods and techniques will depend on the type and quality of data available primarily, but also the specificity of the cases analysed. Thus, based on the primary data held, it will be possible to estimate the used method potential and the quality of the results offered in the end. Selecting the quantification method will also influence the time available, since some methodologies may consume more time than others may.

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Fiscal Risk Minimization Tools, Transfer Pricing Associated

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Abstract

Given the conditions of transparency amplification by introducing supplementary reports on the activity of sub holding companies, fiscal administrations grow to be more and more interested in the national budget income increase, therefore intensifying controls mainly in transfer pricing.

Documenting this research with the existing literature in the field, through the processing and interpretation of statistical data or data comparative analysis, we recommend the following, for companies transacting with sub holding companies: transfer pricing file preparation while respecting in-force legal regulations and the use of some instruments that should lead to fiscal risk minimization in transfer pricing. These instruments are the in-advance price agreement or the anticipated individualized fiscal solution.

If control authorities have settled measures, they have come to a dispute, or the companies consider double taxation, they may resort to the mutual agreement procedure or arbitration, to the fiscal appeal or a litigation proceed to the national courts of justice.

Key words: transfer pricing, advance pricing agreement (APA), anticipated individualized fiscal solution (AIFS), mutual agreement procedure, fiscal appeal.
J.E.L. classification: G3, H2, H3.

1. Introduction

While fiscal administrations have intensified controls in the field of transfer pricing, companies involved in transactions with sub holding companies must be more and more prepared to face fiscal inspection in this field, in order to avoid the eventual measures suggested by authorities, or disputes with these caused by lacunae in legislation, various interpretations in law, determined by the level of education and experience of the staff involved in the control process.

In this sense, in the year 2020, through the PFM Order no. 3281/2020, the informative statement 394 has been modified – concerning the delivery/service providing and acquisitions performed on the national territory by VAT registered taxpayers, by reporting, in the form, transactions with sub holding entities from the reporting period (PFMO 3281, 2020). The modified format of the statement comes in the aid of fiscal authorities to whom it is easier to identify taxpayers that develop transactions with sub holding parties and who might be selected for an eventual fiscal inspection.

Through *the Plan of Actions for the implementation of the National Reform Program 2020 (PNR)* and *Country Specific Recommendations 2020 (RST),* the Romanian Government, in July 2020, has suggested a series of measures in transfer pricing matters in the responsibility of the National Fiscal Administration Authority (ANAF), presented below:

Table no. 1 Impact measures in the field of transfer pricing

Measure	Content and stages	Starting period (quarter/year)	Dead-end of implementation (quarter/year)	Performance indicators
1. Prevention and fight against fiscal evasion	The measure targets: -the initiation of fiscal inspections in agreement to BEPS plan (Base Erosion Profit Shifting) and ATAD directive; -the extension and improvement of electronic control techniques (by implementing a standard international audit file for all economic entities: SAF-T); -the development of an electronic system monitoring intra-community transactions (ESMICT).	I/2020	II/2022	-fiscal risk identified in the case of taxpayers, transfer pricing associated; -approved mutual agreement; -SAF-T implemented electronic system; -implemented electronic system monitoring intra-community transactions.
2. Increase in voluntary compliance in the field of transfer pricing	The measure aims to improve the fiscal inspection staff administrative and professional capacity in dealing with transfer pricing controls and intends to intensify the fiscal inspectors' training in transfer pricing matters, the public promotion of possibilities to issue advance pricing agreements and anticipated individualized fiscal solutions as well as scheduling meetings to assist taxpayers on transfer-pricing topics.	I/2020	IV/2021	- no. of fiscal inspectors trained in transfer pricing matters; - taxpayers are assisted on transfer pricing in a no of meetings.
3. Improving risk analysis in the field of transfer pricing	The measure consists of: - issuing some work procedures that should lead to the improvement of means in taxpayers' fiscal risk identification, associated to transfer pricing; - drawing a methodology to identify suspect transactions between sub holding entities and performing the control of transfer pricing documentation; - national wide identification of sub holding entities, the inventory of suspicious transactions in the field of transfer pricing and taxpayers' notification with a view to correcting fiscal statements.	I/2020	IV/2021	-supplementary amounts established as a result of fiscal inspections having as selection criteria transfer pricing risk analysis; -the total number of fiscal inspection actions having as topic transfer pricing;

Source: (The plan of actions for implementing PNR and RST 2020)

Within the context of prior presentations, in order to reduce the fiscal risk associated to transfer pricing, contributors may resort to types of actions, namely, proactive and reactive (Gheorghiu, 2020).

Section 2 of the paper presents **proactive instruments**, having the role to anticipate problems and changes, preparing the taxpayer for what might follow. We include in this category:

- Resorting to advance pricing agreement (APA);
- Resorting to the anticipated, individualized fiscal solution (AIFS);
- The identification of transactions with sub holding entities and help given to draw and update the transfer pricing file their corresponding documentation by drawing and updating the transfer pricing file.

In Section 3 of the paper we present **reactive instruments**, that turn up as a result of a fiscal inspection action, namely when measures were taken, or they have come to a dispute with control authorities, or the companies consider double taxation. In this category we include:

- Applying for the mutual agreement procedure and arbitration;
- Fiscal appeal;
- A litigation proceed in the national courts of justice;

Section 4 of the paper comes with the conclusions of this research, highlighting the idea of using APA or AIFS as fiscal risk covering instruments used by companies carrying out transactions with sub holding companies. Another conclusion of this research refers to applying for the mutual agreement procedure, respectively resorting to a fiscal appeal or ultimately, initiating a litigation in the national courts of justice, in situations in which control authorities have established measures or they have gone into a dispute with these, or the companies consider double taxation.

2. Theoretical background

Transfer pricing is about a set of laws and practices through which the States ensure themselves that the profit resulted from transactions between the parties of the same group with their goods, services, intellectual property rights, and assets is registered and deposited where locally obtained. This is a very important aspect, given the conditions in which transfer pricing may determine the group's profit increase in States with diminished fiscality or, on the contrary, they may reduce profit, where fiscality is increased.

According to law, transactions between sub-holding parties must be concluded at the **market price**, in other words, at the price a similar transaction between independent parties had been concluded, given comparable economic conditions. If the transaction price between sub-holding entities is not within the **market interval**, one may consider that the profit obtained by parties as transaction result is not correctly reflected, therefore affecting paid taxes and fees.

According to the **arm's length principle**, when established or imposed conditions for trading or financial relationships between two sub-holding entities are different from the ones existing between independent entities, any profit that would have been obtained by one of the parties while the respective conditions are lacking may be considered the profit of that entity and taxed accordingly.

In order to cut down on the fiscal risk associated to transfer pricing, companies may appeal to the in-advance price agreement (APA), and the anticipated individualized fiscal solution (AIFS). If measures are established or taxpayers go into dispute with the control authorities, the solution is the amicable settlement and arbitration, the fiscal appeal or a litigation proceed at the national courts of justice.

3. Research methodology

The conclusions of this study are based on the existing literature in the field, on the processing and data interpretation through data comparative analysis.

4. Proactive Instruments of Fiscal Risk Minimization, Transfer Pricing Associated

Further on, we will analyse, among proactive actions, APA and AIFS, in detail.

According to the study globally performed by Ernst and Young - *Transfer Pricing and International Tax Survey 2019* (Ernst and Young, 2019), within which more than 700 people in leading positions, in fiscality and transfer pricing, were interviewed, an increase in the interest of using advance pricing agreements is to be noticed, as an instrument to prevent some dissensions with fiscal authorities in transfer pricing matters. As the information presented below shows, 43% of the company representatives have mentioned they would use in future the in-advance price agreement.

Figure no. 1. Tendencies for using APA



Source: (Ernst and Young, 2019)

4.1. Advance Pricing Agreement (APA) is defined by Law no. 207/2015 on the Fiscal Procedure Code as being the administrative document issued by the National Fiscal Administration Authority (ANAF), with a view to solving a taxpayer's request about establishing conditions and means that are about to determine transfer pricing along a fix period, in the case of transactions performed with sub holding entities, the way they are defined in the Fiscal Code. The main APA characteristics are the following:

It is the document through which the taxpayer obtains the guarantee that fiscal authorities will accept the methodology to determine transfer pricing chosen by these;

- It is opposable to the fiscal authorities.

As in-force regulations stipulate, APA can be issued for any kind of transaction, as follows: funding within the group, procurement of goods, service-providing, sales (Tache, Luca, 2019). Taking into consideration the expenses with issuing APA, namely, 20.000 EUR for large taxpaying entities and 10.000 EUR for the rest of taxpayers and the fact that APA covers a unique intra-group transaction with a single sub holding party of the applicant, there is a need to perform a cost analysis in comparison to obtained benefits. It is recommended that transactions for which APA is requested should have coherence and have important values in order to justify the request opportunity.

ANAF Order no. 3735/2015, that approves on the issue and amendment of the in-advance price agreement, as well as the on content of the issue request and modification of the in-advance advance price agreement (ANAF Order no. 3735/2015) regulates the procedure of issuing APA.

APA is used to approve the methodology through which it establishes transfer pricing in the case of in-advance intra-group transactions on an initial period of up to 5 years, with the possibility of subsequent extension. Longer term agreements may be issued, given the situation of long-term agreements. Annually, the taxpayer that benefits from APA must prove the observance of the terms settled in the agreement by preparing and submitting an annual compliance agreement.

The agreement may be unilateral – concluded with the fiscal authority in Romania, mutual or multilateral – with the involvement of two or more fiscal authorities. By concluding a mutual or multilateral settlement, the risk to double tax or double non-tax is avoided.

The in-advance price agreement is favourable by the following:

- success in the protection of the eventual measures related to transfer pricing for transactions covered by APA;
- allows increased adaptability in setting the pay for the performed transactions within the group, such as: production and distribution transactions, service-providing, financial agreements etc.;

- the period in time in which it might be obtained is generally diminished (for unilateral APA to 12 months, respectively, for mutual or multilateral APA to 18 months), comparatively with the period that might need the transfer pricing analysis performed by the authorities as a result of some litigations;

- for transactions covered by APA the transfer pricing file is not necessary, and that would diminish the company's efforts on a long term;

- it correctly determines the company's fiscal liabilities, which implicitly leads to cost prevention in the case of a financial control in the field of transfer pricing.

On basis of OECD recommendations in EU, the in-advance price agreement may be applied on periods previous to the moment of application, given that certain conditions are respected, a procedure known under the name of roll-back APA. At present, in Romania, there is no possibility to use the same APA for periods prior to the one that represents the object of APA. In the near future, we expect a local legislation within the range of OECD recommendations.

The applying procedure and the documentation to be drawn by a taxpayer applying for the issue of the in-advance price agreement are provided in Law no. 207 of 2015 concerning the Fiscal Procedure Code. The issuing procedure is initiated by the taxpayer by submitting an application that may be preceded, if the taxpayer requires it, by a preliminary discussion with the fiscal authority.

The documentation to be submitted in order to obtain APA may comprise the following information:

- ✓ Organization structure of the group, describing in general the group activity;
- ✓ A methodology description that would implement and allow applying for transfer pricing (if the case) and the general presentation of transactions between the sub holding entities;
- ✓ The analysis of functions, risks and assets within the group;
- ✓ A detailed presentation of transactions to be covered by APA and of parties involved in transactions;
- ✓ A comparative analysis;
- ✓ An information presentation on external or internal comparable transactions;
- ✓ Critical assumptions that might affect the transaction's transfer pricing;
- ✓ Authorities from abroad requested to participate in issuing the agreement;
- ✓ A description of proposed transfer pricing methodology;
- ✓ The period to be covered by agreement;
- ✓ The description of other relevant conditions for the taxpayer;
- ✓ Declaration on honour regarding the information correctness and that there is no fiscal, administrative or judicial procedure on for the transaction which is APA subject;

4.2. The Anticipated Individualized Fiscal Solution (AIFS) is defined by Law no. 207/2015 on the Fiscal Procedure Code as the administrative document issued by the central fiscal entity in order to solve a request of the company and which regulates future fiscal reports. AIFS is required in cases in which a taxpayer encounters difficulty in the interpretation of fiscal legislation, this representing a definite answer from the fiscal authorities, being opposable and mandatory. AIFS issuing procedure was regulated by ANAF Order no. 3736/2015 in order to approve the Procedure on issuing the anticipated individualized fiscal solution and the application for the issue of the anticipated individualized fiscal solution (ANAF Order no. 3736/2015).

The main AIFS characteristics are the following:

1. It targets a future state of facts, it is issued for every future factual fiscal report and for each fiscal liability. The fiscal treatment established by AIFS is appliable starting with the future operation whose regulation was requested.

2. It does not regulate a future fiscal report which is the object of other administrative documents, such as the fiscal inspection report.

3. The application form, attached to AIFS issuing documents, contains a documentation content request, respectively, "*information and data briefing requested within the application form for the issuing of a fiscal solution that makes the object or might lead to commercial, industrial and/or professional secret disclosure*", and is meant to protect this information and data.

4. AIFS issuing application form might be rejected by the authorities in cases specified by ANAF Order no. 3736/2015, which also states the situation in which "t*he case in discussion makes the object*

of Penal investigation, including facts of fiscal evasion and is related to the applicant taxpayer".

5. AIFS project is sent to the taxpayer who may express his point of view within 60 working days.

6. There might exist the procedure of fiscal information exchange with the fiscal administrations of the States involved in a possible cross-border transaction, when the fiscal authorities find that the transaction which is AIFS subject might be an artificial cross-border transaction.

7. If the taxpayer does not agree with the issued AIFS, he might send, within 30 days' time "from the communication, a notification to the issuing fiscal authority", AIFS not producing therefore any judicial effect.

8. Expenses established by ANAF for AIFS issuing are 5000 euro for large taxpaying entities and 3000 EUR for the other taxpaying categories.

5. Reactive Instruments for Fiscal Risk Minimization, Transfer Pricing Associated

The multinational companies' double taxation imposes reactive actions from the part of those involved. It comes up in cases in which control authorities from another state establish measures in relation to transfer pricing for transactions with non-resident sub-holding entities. Further on, we are going to present taxpayers' best-known - transfer pricing - reactive actions:

5.1. The Mutual Agreement Procedure – MAP is a resolution instrument used by taxpayers in double taxation caused by transfer pricing measures taken by the fiscal authorities. At present, the national legislation regulates two manners of developing the mutual agreement procedure:

- the mutual agreement procedure initiated on basis of conventions that avoid double taxation, concluded between Romania and other States;
- the mutual agreement procedure developed under the Convention on the elimination of double taxation in connection with the adjustment of profits of associated enterprises (90/436/EEC) - the Arbitration Convention, applicable only to the Member States of the European Union.

The procedure allows competent authorities from the States involved to communicate with one another and supposes a negotiation process. The taxpayer is the one that must draw the documentation needed for the initiation of a mutual agreement procedure (Gavriliu, Botez, 2019).

In practice, legislation uses the procedures of:

- The Fiscal Procedure Code;
- Conventions that would eliminate double taxation, concluded between Romania and other States;
- Directive lines on transfer pricing issued by the Organisation for Economic Cooperation and Development for multinational companies and fiscal administrations, with its amendments and subsequent completions;
- The Convention on the elimination of double taxation in connection with the adjustment of profits of associated enterprises (The Arbitration Convention);
- Revised Code of Conduct for the effective implementation of the Convention on the elimination of double taxation in connection with the adjustment of profits of associated enterprises (2009/C 322/01)
- Manual on Effective Implementation of the Mutual Agreement Procedure – MEMAP, issued by the Organisation for Economic Cooperation and Development.

Romania has adopted Council Directive (EU) 2017/1852 on tax dispute resolution mechanisms in the European Union. This directive was implemented in the national legislation through G.O. no.19/2019 for the amendment and completion of Law no. 207/2015 on the Fiscal Procedure Code.

The main advantages given by the mutual agreement procedure on the elimination of double taxation are:

- ✓ It can be initiated in parallel with the development of administrative and judicial fiscal procedures;
- ✓ It supposes cooperation between the fiscal authorities and taxpayers subject to the decision, being a process characterized by transparency and objectivity;
- ✓ Concluded agreements will be put into application, no matter the prescription period provided by the internal legislation of Contracting States;

✓ It represents a means of action used by the taxpayers who consider themselves wronged by the fiscal authority decision.

The procedure for the elimination of double taxation between Romanian sub holding entities, according to the Fiscal Procedure Code, supposes the following aspects:

1. The adjustment/estimation of one of the subs' revenue or expense, performed by the competent fiscal authority for the administration of receivables due by the respective entity, it is opposable to the fiscal authority for the administration of the other's sub holding entity receivables.

2. The adjustment or estimation decision is communicated to the other Romanian sub, as well as to the competent fiscal authority and is opposable to the fiscal authority only if the other Romanian sub holding party has performed the corrections that would lead to avoiding double taxation.

3. The other sub holding entity may correct the adjustment or estimation decision by submitting the tax return statement for the tax period when the respective transaction was carried out.

In the development of the mutual agreement procedure for the elimination/avoidance of double taxation on basis of (EU) 2017/1852 Council Directive on tax dispute resolution mechanisms in the European Union, the following steps are important to go through:

1. It is performed at a taxpayer's request when affected by double taxation.

2. It is exclusively initiated by the taxpayer and not by the fiscal administrations generating the double taxation, withing three years from communicating the tax return statement.

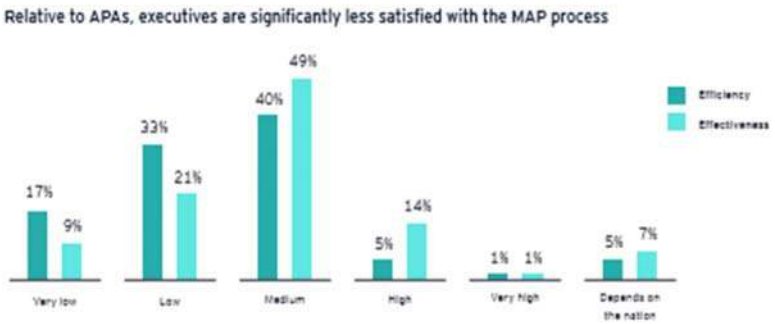
3. The Romanian State may choose to solve the dispute unilaterally (1 – 1,5 years).

4. Member States in question are to reach an agreement for the elimination of double taxation, *via* mutual agreement, by identifying the right taxation level in both States (2-3 years).

5. If double taxation is not solved, the dispute is concluded by a consultative commission, namely by arbitration (3-4 years).

According to the study performed by Ernst and Young - *Transfer Pricing and International Tax Survey 2019* (EY, 2019), there is to be noted a respondents' dissatisfaction, as well as that of fiscality and transfer pricing managers with regard to MAP (mutual agreement procedure), and the statistics is graphically presented below:

Figure no. 2. Degree of satisfaction evolution on the mutual agreement procedure



Sursa: (Ernst and Young, 2019)

5.2. The Fiscal Appeal is an administrative remedy at law and it does not remove the statute of limitations of the entity considering itself injured in rights by a fiscal administrative document. It is regulated by Law no. 207/2015 on the Fiscal Procedure Code.

The fiscal appeal shall be lodged within 45 days from communicating the fiscal administrative document. If the fiscal administrative document does not mention: the possibility to appeal, the appeal's lodging term and the fiscal authority to lodge the appeal to, the lodging term is of 3 months from communicating the fiscal administrative document and the addressee is the fiscal authority who issued the administrative document subject to appeal.

Those responsible with analysing and solving the appeal are the fiscal inspection authorities who drew the fiscal administrative document subject to appeal, which must consider the information, documents and new arguments brought to the case.

Appeals are solved by competent authorities in matters of appeal.

According to law, any taxpayer lodging for an appeal has the right to withdraw complaint any time before it is being solved, without losing the right to lodge a new appeal while respecting the legal lodging terms.

According to the Fiscal Procedure Code, decisions issued in solving appeals, together with fiscal administrative documents they refer to, may be attacked, by the appellant or by people mentioned in the appeal solving procedure, to the competent administrative and fiscal court, given the law conditions.

5.3. A Litigation Proceed in the National Courts of Justice represents another means to solve disputes on transfer pricing and their specific double taxation.

In support of these statements we have data provided by Ernst and Young's study - *Transfer Pricing and International Tax Survey 2019* (EY, 2019), who show "a more increased degree of satisfaction in the case of respondents" concerning the experience of domestic fiscal litigations in comparison to the mutual agreement procedure. According to the study, 21% of companies have filed to the court of justice during the last 3 years on transfer pricing. From these, 25% were satisfied with the litigation sentence, while 42% of respondents declared themselves dissatisfied with the result.

6. Conclusions

To conclude with, it is important that companies performing transactions with sub holding entities, potential beneficiaries of APA or AIFS, should perform an analysis of the type cost-benefit, while scaling expenses they have with their issuing vs fiscal risks they have in this case. About costs, both pecuniary ones, respectively, issuing tariffs, and the ones with the staff involved in preparing and providing information and data must be analysed. Given the conditions of a legislation continuously at change, if estimated costs are smaller than the estimated fiscal risk, then, we recommend the use of these instruments that cover fiscal risks to companies that perform transactions with sub holding entities.

As a result of fiscal inspections, when measures were established or disputes with control authorities have arisen, or the companies consider double taxation, companies may access the mutual agreement procedure and arbitration, they may resort to a fiscal appeal or ultimately to proceed with a litigation in the national courts of justice.

The mutual agreement procedure incorporation by internal regulations has the role to stimulate local taxpayers that would like to initiate an amicable settlement for the solving of double taxation caused by transfer pricing adjustments.

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Demand on the Pharmaceutical Market in the Conditions of the COVID-19 Health Crisis

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Abstract

The study aims to identify the evolution of the pharmaceutical market during the health crisis, determined by the appearance of COVID -19 diseases. The purpose of this study is to highlight the sales dynamics and the main economic and financial indicators as a result of infections with the new coronavirus SA RS-CoV-2. *Thus, the Romanian pharmaceutical market showed a change in the dynamics of the demand for pharmaceutical products, for the treatment of this infectious disease but also for the prevention of contacting this virus. In the period since the outbreak of this epidemic, the demand has shown both quantitative and value changes.*

Key words: drug market, crisis, Covid19, pharmacies, profit
J.E.L. classification: I11, L65, P52

1. Introduction

Periodically, human society faces health crises due to the manifestation of infectious diseases, caused by the action of certain viruses. Depending on the evolution and dynamics of the spread of viruses, diseases manifest themselves locally, regionally or worldwide, the so-called pandemics.

Well known is the health crisis at the beginning of the last century, caused by the manifestations of the most widespread epidemic, known as the Spanish flu, which affected the entire planet and which resulted in a death rate of 5-10% of the population. After 100 years, the planet is once again facing a health crisis caused by the action of the new coronavirus SARS-CoV-2.

This pandemic also affected the Romanian economy through various channels with significant implications in the field of satiety.

Coronaviruses can cause disease in humans and animals. Respiratory infections can cause colds as well as very severe respiratory illnesses such as Middle East Respiratory Syndrome (MERS), Severe Acute Respiratory Syndrome (SARS), or the new coronavirus that causes COVID-19 infectious disease. Appearing at the end of 2019, in the outbreak in Wuhan, China, this disease was not known. The condition is manifested by fever with headache, fatigue, nasal congestion, sore throat, dry wear, diarrhea, poor breathing.

As shown in the paper „Features, Evaluation, and Treatment of Coronavirus„ (Cascella *et al*, 2020), the vast majority of people infected with the new coronavirus do not develop any symptoms, respectively they are asymptomatic and recover without drug treatment. There are also situations when the disease becomes extremely aggressive, when patients suffering from CONVID-19 also have other conditions such as diabetes, high blood pressure, heart disease, when they could even lose the fight with life. Under these conditions, patients who have difficulty breathing, fever and cough, seek outpatient drug treatment or hospitalization.

2. Theoretical background

The appearance of the new human coronavirus has been talked about since 2002, when this virus detected in China was a worldwide concern. Thus, according to a WHO study, in 2003, more than 8,000 people died from being diagnosed with severe acute respiratory syndrome (SARS). Thus, in September 2003, the Institute of Medicine (IOM) on microbial threats initiated the workshop "Learning from SARS: Preparing for the next outbreak of disease", which identified the causes of the virus, detection, spread and limitation of SARS, possible policy responses the epidemic, the economic consequences, basic research of coronaviruses, preparation for a possible recurrence of SARScoV.

As it is known, the beginning of 2020 is facing one of the biggest pandemics, which is far from ending in the next period according to the estimates presented in the article "Estimating the effects of non-pharmaceutical interventions of COVID-19 in Europe" (Flaxman *et al*, 2020).

3. Research methodology

The objective of this study is to evaluate the way in which the Romanian pharmaceutical market evolved in the period following the appearance of this COVID-19 disease, determined by the infection with the new SARS-CoV-2 coronavirus.

At the same time, the objective of the study is to highlight in the pharmaceutical entity, the dynamics of sales from the release of pharmaceuticals for the prevention of infection with this virus and for the treatment of this disease. The study aims to highlight the number of units released, the commercial margin achieved, the financial contribution of patients to the purchase of pharmaceutical products for the prevention and treatment of this disease.

The research method took into account the direct, selective analysis of the release of some pharmaceutical products, medicines or food supplements administered for the prevention or treatment of this disease, in the period from the appearance of the sanitary crisis. The materials used consisted of analytical sheets obtained from the program of evidence and management of pharmaceutical products that formed the basis of research.

4. Findings

The global pharmaceutical market has passed the period in which the patents held for some original pharmaceutical products have expired, which has negatively influenced sales.

The same period is influenced by the entry into the US pharmaceutical market of a significant number of innovative products, so that they have contributed to increasing the value of the pharmaceutical market.

The phenomenon of increasing the volume of the pharmaceutical market is present even in the regions where the access to medicines is less limited, due to the rather high prices.

According to the preliminary report, the Pharmaceutical Market Research Institute Cecedim Romania estimates that an annual volume of drug sales of almost 4 billion euros for 2019, the Romanian market continues to consolidate in its entire value chain and even needs to align with the trends manifested globally. In this context generated by the increased demand for medicines and health equipment, generated by the Coronavirus pandemic, analysts in the field estimate that, in 2020, the Romanian pharmaceutical industry will record a record in business throughout the value chain, respectively manufacturers-distributors- pharmacies. The local pharmaceutical industry, which is at the forefront of the fight against coronavirus, will contribute both to ensuring the health of the population and to the stability of the local national economy.

In the context of the COVID-19 crisis, the Romanian Association of Industrial Drug Producers estimates that in 2020 there will be a decrease in profitability, due to the reduction of the market share of generic drug producers, while reducing revenues caused by the increase in clawback tax, as well as rising prices for raw materials and protective equipment.

With the declaration of the coronavirus pandemic, the pharmaceutical industry of generic drugs has faced the cessation of exports of drugs and pharmaceuticals and the possibility of capping the prices of drugs, even over-the-counter drugs, which have free prices, which will influence the situation their economic and financial situation.

In the period since the onset of the pandemic, in addition to the measures taken and applied by the authorities to limit the spread of coronavirus, the population has sought solutions to solve health problems. Thus, stimulated by the aggressive advertising campaigns of the main players on the pharmaceutical market, of the products destined and released for the prevention and treatment of this COVID-19 disease, the patients turned more and more frequently to the pharmacies.

Due to the ignorance of the action of this virus, the patients were supplied with medicines and nutritional supplements, even if many of them were not affected.

The population purchased, without a prescription, pharmaceuticals and even devices, all to be prepared in a possible COVID disease 19.

Considering the objective of the study, we analyzed the sales of pharmaceutical products for the period March 12, 2020 - November 30, 2020. The study focused only on the most widely released drugs and supplements to boost immunity and treat this disease COVID 19.

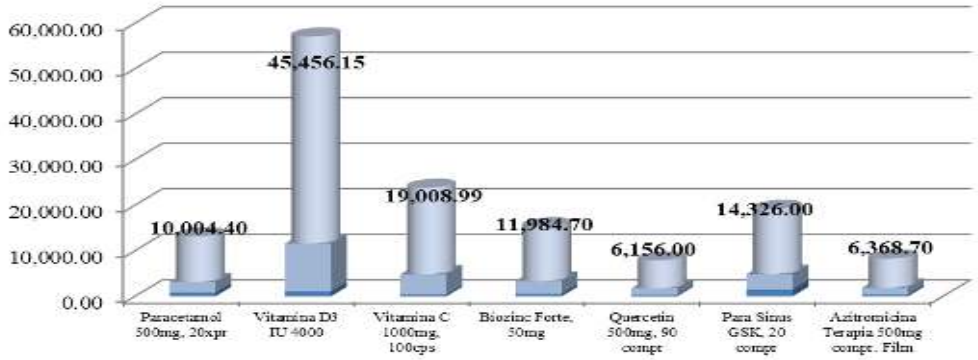
In the table below, we presented the situation of releases for the period indicated above.

Table no. 1 Situation of sales of pharmaceutical products for coronavirus treatment, between March 12 and November 30, 2020, by a community pharmacy

No	Pharmaceutical product name	Supplier price	Sale price	Quantity released	Trade margin	Sale value
1	Paracetamol 500mg, 20xpr	9.70	12.60	794.00	2,302.60	10,004.40
2	Vitamin D3 IU 4000	34.80	45.23	1,005.00	10,482.15	45,456.15
3	Vitamin C 1000mg, 100cps	53.56	69.63	273.00	4,387.11	19,008.99
4	Biozinc Forte, 50mg	16.90	21.95	546.00	2,757.30	11,984.70
5	Quercetin 500mg, 90 tablet	83.07	108.00	57.00	1,421.01	6,156.00
6	Para Sinus GSK, 20 tablet	7.30	9.50	1,508.00	3,317.60	14,326.00
7	Azithromycin Therapy 500mg tablet. Film	13.80	17.94	355.00	1,469.70	6,368.70
Total					**26,137.47**	**113,304.94**

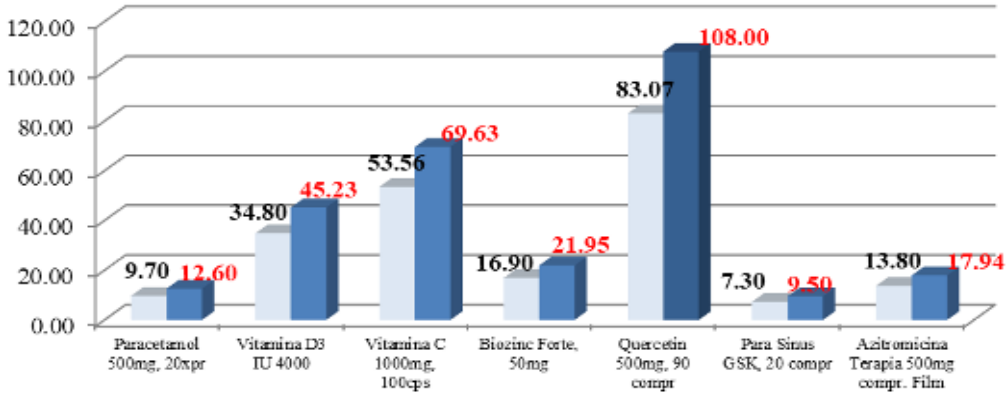
Source: Pharmacy GF ltd, Own processing, November 30, 2020

Chart no.1 Evolution of sales for the first 7 products released between March 12 and November 30, 2020, by a community pharmacy (lei)



Source: Pharmacy GF ltd, Own processing, November 30, 2020

Chart no.2 Comparative evolution of the entry price / sale price of products issued between March 12 and November 30, 2020, by a community pharmacy (lei)



Source: Pharmacy GF SRL, Own processing, November 30, 2020

Graph no.3 Evolution of the amounts obtained from the commercial margin for the products released in the period 12-March-30 November 2020, by a community pharmacy under study (lei)



Source: Pharmacy GF SRL, Own processing, November 30, 2020

As we can see, from the study conducted only on a number of 7 pharmaceuticals, drugs and food supplements released in a community pharmacy, it is found that this health crisis, caused by this unknown coronavirus has determined a certain attitude consumption of population.

The data presented in the 3 graphs above are related to a request for release without a prescription. Under these conditions, the population influenced by the aggressive advertising of pharmaceutical companies, consumes preventively, without a recommendation from some specialists, pharmaceuticals to increase immunity and even to treat this disease.

Significant is the level of commercial margin achieved by selling food supplements such as Vitamin D3 with 2000, 4000, 5000 IU, Vitamin C of 1000 mg.

The release of drugs to treat less severe forms of COVID 19, such as Paracetamol 500 mg (794 boxes), ParaSinus (1508 boxes) or Azithromycin 500 mg (355 boxes), may be considered essential for this study period.

The level of income achieved in the period studied only by the 7 products is significant, compared to the same period of 2019, when it can be estimated several times higher.

To date, we cannot yet speak of the existence or placing on the global pharmaceutical market of a specific vaccine or antiviral drug to prevent or treat COVID-19 disease.

The population has proceeded to purchase and administer food supplements dedicated to ensuring and increasing immunity in most cases without these being recommended by a specialist.

Affected patients must carefully manage their symptoms, under the assistance and guidance of specialists, most recovering from care received in the early stages of the disease and with financial coverage from their own resources.

Patients with serious illnesses require services and treatment according to an adequate medical protocol in a hospital dedicated to the treatment of COVID 19, with a financial effort, specialized labor and material resources of protection and consumables, fully funded by that state.

Possible vaccines and some specific drug treatments are being investigated. These are tested by clinical trials. WHO coordinates efforts to develop vaccines and drugs to prevent and treat COVID-

5. Conclusions

According to studies presented by pharmaceutical market research institutions, the local pharmaceutical industry will be the first of the segments least affected by the pandemic, along with the food industry, health and welfare, IT&C, agriculture, energy and gas and water distributors and sanitation.

Globally, several pharmaceutical companies have researched and investigated this virus and are trying to produce specific drugs to treat this disease but also a suitable vaccine, which is to be placed on the world market.

The financial effort at the mental level to treat and vaccinate the population against this deadly virus is considerable.

According to a report by the European Court of Auditors, published on September 24, 2020 (Agerpres), the financial impact in the euro area of the COVID-19 pandemic is much higher than that of the economic crisis of 2008 and 2012, and the economic shock wave continues to spread with multiple problems still unresolved, as a result of potential unknown risks but also health policy deficiencies.

The inadequacy of policy instruments both for the euro area and at the level of each EU member state verifies the so-called resilience of its economic and financial architecture.

The health crisis caused by the 2020 pandemic runs the risk of deepening economic disparities between Member States, as well as the risk of a significant deterioration in budget deficits and public debt, and that this puts considerable pressure on public spending and revenue.

It can be appreciated that the existence of a high level of debt in a Member State before the pandemic accentuates its vulnerability and has an important influence on its ability to implement policies, to support economic entities.

The WHO is currently coordinating efforts to develop and authorize and market vaccines and medicines for the prevention and treatment of COVID-19, as the only way to eliminate the negative effects on the world economy.

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Constructivism - a Pedagogical Approach for the 21st Century

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Abstract

The purpose of this essay is to emphasize the characteristics of the integration methods (theories) for the constructivist didactic interdisciplinary basic training of young professionals. The constructivist approach stimulates students to use active techniques (experiments, solving problems encountered every day) helping them to create new knowledge. It encourages knowledge of individual at first in a subjective manner by exploring the direct and mental processing of information, then through collaboration, it leads to negotiation and generalization of ideas. The constructivist approach plays an active role in building student's understanding of information. It seeks to solve some of student learning problems, to carry forward human knowledge and to identify ways to improve school practice.

Key words: constructivism, teaching, active techniques, thought flexibility
J.E.L. classification: Z00

1. Introduction

Human learning, as a fundamental activity, involves sustained effort and substantial energy consumption. School learning, as an anticipated, designed, organized, developed, evaluated and regulated approach, all the more presupposes active involvement, sustained motivation, a positive psychic tone.

Learning activities, carried out according to constructivist models, involve the coordination of all personality structures (cognitive, affective, motivational, volitional, attitudinal, aptitudinal), in order to overcome obstacles, limits, difficulties in solving tasks (research, investigation, experimentation, solving exercises or problem situations etc.).

Being a student-centred approach, those involved may encounter difficulties in the constructivist learning activities, cognitive blockages (or other forms, for example, affective, motivational ones), sometimes by overworking or misjudgements due to subjective qualitative interpretations. The realization of the learning activity can also be obstructed by its external factors, conjunctural, circumstantial, of a certain mental structure of the society, of the type of experience of the students, but also of the teachers who guide the learning activity.

2. Theoretical background

The complexity of the current context poses serious problems of reconception and realization in education, so that voices that speak of a "critical state of pedagogy" or of the "crisis of pedagogy" (Bîrzea, 1995) seem to be justified, and solutions are not long in coming.

One of these would be the constructivist approach to education, correlated with the postmodernist vision of pedagogy, as another paradigm that is gaining ground, not only in pedagogy (Wilson, 1997).

Even C. Bîrzea considers, after inventorying several opinions on this aspect, that pedagogy "jumped" over modernity, already entering postmodernism. The difficulties that fuel the critical state cannot be neglected: mastery of behaviourist practices in the curriculum, restrictions in the use of current information technologies, poor training of educators, relative formal-non-formal correlation, etc. Pedagogy is still the field of disputes between various orientations on education.

Compared to traditionalism and modernism, the increasingly present postmodernist current would be characterized (Beck) by: seeking and accepting teaching-learning and educational alternatives,

giving up the border between sciences, decentralization, tolerance, uncertainty, interculturality, globalism, individualism, humanization of technology, diversification of communication.

At the educational level, they would materialize in the promotion of new educations, in the curricular reform, in the managerial decentralization, in the personalized approach of the strategies, in the use of the alternative sources of information, in the plurality of training models.

This innovative approach of first importance in education, under the aegis of "student-centred learning", starts from the major constructivist perspectives represented by Jean Piaget and L.S. Vygotsky.

2.1. Cognitive Constructivism

Based on Jean Piaget's theory of cognitive development, according to which the individual must build his own knowledge through experience, it allows him to create mental schemas that change through two complementary processes: assimilation and accommodation. It is up to the educator to ensure an environmental context for the student's exploratory activity.

In the vision of Piagetian constructivism, cognitivist or psychological, learning is an individual approach: students come to the lesson with ideas, beliefs and opinions that must be modified, developed by the educator; To this end, the teacher formulates tasks and dilemma-problems. The construction of knowledge appears as a result of the activity submitted to solve these tasks. Characteristic practices include "learning by discovery", operation with objects, tasks that require operation with both existing concepts as well as Socratic dialogue techniques.

Implications: Learning is an active process; direct experience, errors, the search for solutions are vital for assimilation and accommodation.

Training: the student must be offered opportunities to build knowledge through his own experience. Knowledge cannot be "told" by the educator. Modern technologies offer a wide range of possibilities. To be used: data banks, simulators, microlum.

2.2. Social Constructivism

Criticizing the thesis of contemporary pedagogy on the independence of development from learning activity, Vygotsky promotes the thesis according to which rational built learning is at the forefront of development and pulls it behind it, broadening its possibilities and perspectives; "Development processes do not coincide with learning processes, ... development processes follow the learning processes that create the area of next development", "only that learning that pushes development forward is satisfactory".

For Vygotsky, mental development is inextricably linked to motivational development, in its affective terminology, which is why in his works he supports the principle of unity of "intellect and affect." The ideas promoted by Vygotsky were taken over, supported and developed by his collaborators and disciples, as well as by Western specialists.

Implications: the role of modern technologies is to connect students for collaboration. The role of the educator is not to provide the context for individualized learning, but to help the student approach the problem, to encourage him to work in groups to analyse solutions, as well as support him with advice when he needs it.

The way Vygotsky's vision is conducted varies greatly, but each activity follows the following principles:

- learning and development is a social, collaborative activity;
- the area of next development can serve as a guide for curricular planning and lessons;
- school learning must be done in a meaningful context and must not be separated from the learning and knowledge that students achieve in the real world;
- experiences must be related to the student's school experience

3. Research methodology

If the Piagetian and Vygotskian visions are the classical component of constructivism, in the last two decades, more and more researchers have turned their attention to the learning process; the focus on the student is only the flag that carries the openers of a path to which specialists trained at different schools of thought work, with theoretical representations, hypotheses and sometimes very distant objectives.

The research focused on the answers to the questions:

What is learning? What is the learning process? What is the role of the educator in the learning process? What can the teacher do to fulfil this role?

Learning: Knowledge is built by people and does not exist outside the human mind. Students build their understanding. They seek meaning and try to discover regularity and order even in the absence of complete information. Learning is an active process. Information can be imposed from the outside, but not understanding; it must come from within. Learning is determined by a complex interaction between the existing knowledge of the subjects, the social context and the problem to be solved. Training refers to providing subjects with a collaborative situation in which they have both the means and the opportunity to build a new understanding.

In this process, special attention is paid to the problem to be solved, the element of which is required to stimulate the exploration and reflection necessary for the construction of knowledge. It is considered that an appropriate problem should have the following attributes:

- to request the construction and testing of predictions;
- to be able to be solved without expensive equipment;
- to have a realistic complexity;
- to be relevant and interesting for the subjects.

The second characteristic of the learning process is the interaction between the subjects; working together to solve the problem gives everyone the opportunity to test and improve their understanding during the interaction.

The role of the educator: Constructivism needs a teacher to help students become active participants in learning. The educator must stimulate the development of subjects by giving them tasks that they can perform only with help, i.e. in the area of next development.

What the teacher can do: In a synthesis of the rich literature dedicated to this problem, the following attributes of the constructivist educator are mentioned:

- encourages and accepts the autonomy and initiative of students;
- uses a wide variety of materials, including raw data, primary sources, interactive materials and encourages students to use them;
- is interested in the students' knowledge of the concepts, before sharing his/her own knowledge;
- encourages students to engage in dialogue with the teacher or other colleagues;
- encourages the student's attempts to explore knowledge and ask questions to colleagues;
- Employs students in experiences that highlight contradictions with the initial information, then stimulates discussion;
- provides students time to build relationships and create metaphors;
- appreciates the level of knowledge through applications and results in "open" tasks.

In essence, the educator's task is to create and maintain a context in which students build their own knowledge, with him/her as a guide.

In the last decade there is an increasing approach of research to the key issues of the educational process, achieving a gradual approach between traditional, fundamental and applied research. The pressures in favour of such investigations are determined by the attention with which developed countries follow international comparative studies.

Some researchers do not consider constructivism as a pedagogical theory, but it can certainly be a useful reference for education.

One of the most promising ideas at this time for school practice in constructivist vision is that of the classroom-workshop, which H. Daniel characterizes as a pedagogical embodiment of constructivist theory: classes no longer represent the place where information is transmitted, but

become laboratories or studios where knowledge is generated, where students and teachers reinvent together the field of study in which they were engaged.

It goes without saying that the orientation towards a constructivist approach to education cannot and does not aim to solve all its problems. Research in this area seeks to advance human knowledge and suggest ways to improve school practice.

It is interesting to note that many research institutes have defined the position from which they will conduct their investigations in the first period of this century. Thus, the well-known Institute for Learning Technologies (Columbia University) states in a programmatic material - " Pedagogy for the 21st Century"- the starting points and the indicative milestones of the investigative approach that they will undertake in the coming years.

Specialists in the field converge on the idea that for the 21st century a small school, in which the educational activity can be structured in relation to the needs and interests of the students, will be more efficient and more competitive; students' activity must be oriented by projects in the defining of which they have participated in and involve them in a real intellectual experience, not in memorization exercises.

4. Findings

From antiquity until now, the case study has been widely used in education, imposing itself as one of the most active methods, with high heuristic value, but also an applicative one. The case study method capitalizes on learning a real situation, significant for a certain field and which needs to be analysed and solved. Unlike other traditional methods that offer "fictitious cases", imagined by the professor, suggested in textbooks and university courses, thus developed at the desk, in the office and, as a result, artificially created, the case study method mediates a direct confrontation with a situation from the real, authentic vine (Cerghit, 2006).

The case study method can be a support in inductive knowledge, in the sense that starting from particular premises one reaches general conclusions, as well as in deductive knowledge, by passing from general to particular, in the sense of making procedural transfers, elaboration of assumptions, application in similar or different contexts.

The interactions of the students in a real, authentic situation, taken as a typical example give the participants the possibility to educate the attitudes towards the others and towards the respective case, of the exercise of the organizational, evaluation and decision capacities.

The advantage of this method is also given by the fact that the situations that represent the case are identical if not similar to those in real life, so it offers the possibility that certain application situations can be solved as learning tasks.

The following steps are outlined in the use of the method:

- Choosing the case: the case can be chosen by the teacher or, capitalizing on the constructivist paradigm, the teacher, depending on the proposed objectives, can support students to report the data of situations that may become cases;
- Notifying the nuances of the case simultaneously with the understanding of the need to solve it by the participants (establishing the unclear aspects, formulating clarification questions);
- Individual solution of the case (documentation, notification and notation of solutions by each participant);
- Group debate on how to solve (achieving a confrontation of variants, their critical analysis);
- Formulation of optimal conclusions based on decisions taken in the previous stage; the teacher's role is to reinforce the students' conclusions;
- Qualitative evaluation of the way of solving the situation-case and evaluation of the degree of participation.

5. Conclusions

Constructivism remains an approach to current pedagogy, but it cannot be a panacea for education problems; at the same time, the limits are not lacking. Thus, it is difficult to carry out constructivist school activities, given that the evaluations are supported by "national" standards. The design and implementation of such an approach for an entire training cycle would require human resources with special training. Considerable material and financial resources are also needed to achieve the means by which the student can build his knowledge.

However, the lack of these conditions cannot stop the educator interested in the way in which learning takes place from using constructivist procedures; some characteristics of constructivism can make him think, can arouse his curiosity and can determine him to take the first difficult step on the path of professional development - that of a researcher.

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The Implications of Economic Fraud – Legislative Analysis, Social Impact and Generic Risk Detection Models

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Abstract

The purpose of this paper is to investigate the impact that economic fraud is playing in economy, along with a legislative analysis to see if the evolution of legislation keeps track with the methods of fraud. This paper presents the main models for detecting the risk of bankruptcy.

This paper presents a theoretical approach to the concept of fraud, explaining how legislation can prevent economic frauds, completed by presenting the social impact that fraud has in the society.

The incursion into the field of fraud brought to attention it's impact in the social and economic life, legislative evolution being the main key to prevent future frauds.

The detection and prevention of fraud began with the understanding of a fraud. Knowing why a fraud appears represents the first key in diminishing as much as possible the fraudulent actions, regarding business environment.

Key words: fraud, legislative evolution, bankruptcy model
J.E.L. classification: G33, H26, K35, K42

1. Introduction

Economic fraud and money laundering are a growing issue with the global economic crisis of 2008 – 2012, brought on by the public, local organisations, world governments, economic and monetary unions.

The current state of knowledge in the fraud field and and implicitly the database constituted as a support consists mainly of books and manuals with thematic reference focused on the study of fraud in reorganization operations, specialized scientific articles, reports of international bodies on combat tax evasion, economic fraud and legislative texts especially from the Romanian space to observe the evolution, the coverage area, the treated and documented cases and the significant changes appeared from the legislative changes to another.

Consequently, in order to develop a documented scientific study, the evolution of the legislative framework of the research topic is initially considered, for the region (space, zone or area) to which this research is addressed.

For this study I choose to debate the evolution of legislative terms related to fraud in the field of reorganization and insolvency procedures among with the impact that economic fraud has in a consumer society.

2. Theorethical background

In most cases, fraud is carried out of a desire to evade the payment of certain obligations, to conceal certain financial benefits or to protect the interests of the perpetrator. According to KPMG Romania, 63% of reorganization operations (including division, merger, insolvency and bankruptcy) are liable to be an economic fraud, still presenting an area of interest in the the study and deepening of fraud (or illicit tax evasion).

The capitalist business model presents a relatively new methodology, taking into account a post-communist economy, where the term „business" was not understood at the same level as now. The legislation of „business machines" has been largely transposed from the European law, also before and after Romania's accesion to European Union, due to the need to align with legislative standards and more.

The research topic and the direction followed by choosing the topic and structuring the objectives to be followed required a thorough analysis of the literature in the field of economic fraud, especially in the field of reorganization operations fraud.

The specialized literature in the field of economic fraud has numerous research materials and the importance of research in the field of fraud lies in their ability to solve the current problems of a globalised economy. Depending on the specific research chosen for study, the literature which we took in consideration in present paper presents, breaks down, explains and proposes recomandations in estompation and why not eradication of the evasionist and illicit fraud phenomena.

In order to understand the acctual level of fight against economic fraud, it is important to have a brief view of the legislative framework regarding „the war of XXI century" – fraud.

In Romania, the legislative framework regarding the treatment of the reorganization procedures of the economic entities was born after Romania's exit from the communist block.

The legislative history of the reorganization procedures begins in 1995 with the adoption of Law no. 64/1995 *on the procedure of judicial reorganization and bankruptcy*, valid until 2006. The basis for the adoption of this law was the coverage of the debtor's lialibities through the reorganization procedure or through that of bankruptcy.

The doctrine defined the dual nature of the procedure, to be at the same time a remedy and an instrument of enforcement on the property of the debtor who is unable to pay.

Law no. 99/1999 on some measures to accelerate economic reform came as a supplement to Law no. 64/1995, the most important aspect being the replacement of the phrase "judicial liquidation" in bankruptcy, the purpose of the law being reformulated to this extend. The most important changes refer to a payment of the liabilities of the debtor who is temporarily unable to pay either by reorganizing the main activity and implicitly of the enterprise, or by declaring bankruptcy. Law no. 85/2006 on the insolvency procedure repealed Law no. 64/1995, being valid with subsequent amendments and completions until 2014. The basis for the adoption of this regulation was the legislative alignment of Romania with the mandatory rules of the European Union, on the occasion of accession in 2007. The purpose declared and treated by this rule was to start a collective procedure to cover the balance sheet liability of the insolvent debtor. Law no. 86/2006 is considered in the literature (Pătrașcu, 2016, p. 46) as the main legislative evolution in terms of reorganization, insolvency and bankruptcy. A significant change is found in the status of the syndic court, the insolvency practitioner and the creditors. From this moment, the syndic judge is in charge of only jurisdictional attributions, the decisions of administrative and opportunity nature being taken by the insolvency practitioner and implicitly by the creditors.

In 2009, Law no. 381 on the introduction of the preventive concordat and the ad-hoc mandate, repealed on October 25, 2013 until October 31, 2013 by Government Emergency Ordinance No. 91/2013. The purpose of this rule was to save the economic entities in temporary payment difficulties, in order to continue the proposed object of activity, to keep the number of jobs and to cover the debtor's debts through amicable debt renegotiation procedures or by concluding a preventive agreement.

In 2014, the current legislative framework on insolvency prevention procedures and insolvency by Law no. 85/2014 being regulated to a large extent all the provisions on insolvency and bankruptcy.

Law no. 85/2014 is nicknamed the Insolvency Code, making a number of amendments to participants in the insolvency proceedings in order to eliminate some of the difficulties in the old regulations (especially as regards the judiciary, part of the insolvency process). The need to impose such legislative rules arose due to the need to ensure a balance of positions held by the actors involved in the insolvency proceedings on the one hand, but also to streamline procedural mechanisms on the other, thus achieving an alignment with current European standards. The law is practically a transposition of the active legislative text at European level, adapted to the economic market on the Romanian territory.

Regarding the division and merger, the main legislative norm currently in force is Law no. 31/1990 with subsequent amendments and completions, which treat in a similar manner both the merger and the division procedure, these being in fact changes in the status of a legal entity in the mirror. The main consideration from which the drafting of legislative texts on reorganization operations is based is that fraud, in most cases (according to the National Institute of Statistics) is committed at the time of declaring insolvency and less in other operations of insolvency. reorganization, this being the starting point in the scientific research relevant to this field. For the same reason, we consider that the most representative moment in which economic fraud can take place is when the state of insolvency is declared publicly, which is why it will continue to be the main axis of scientific debate, without excluding the others. , as evidenced by the number of scientific publications dealing with economic fraud in insolvency and less in division, merger or dissolution.

At the level of the European Union, the issue of economic fraud is closely monitored and debated by all decision-making bodies. In fact, the global economic crisis has called into question the establishment of a European tax monitoring body, namely EuroFisc, with the stated aim of combating economic fraud through illegal tax exemptions, double taxation, tax havens and others.

The European tax monitoring body (Eurofisc) aims to establish a unanimously accepted legislative framework adopted and adopted by the Member States of the European Union on tax evasion, money laundering and economic fraud, being divided into separate chambers for the adoption on the one hand and the application of the new legislation on the other. However, being at the draft stage, it is necessary to move to ways to prevent the risk of fraud currently under debate and ongoing.

3. Research methodology

The documentation considered in the elaboration of this study was made through a research of the specialized articles in the field of economic fraud, considering aspects such as *insolvency fraud*, *bankruptcy risk models*, *legislative evolution* in the field of economic fraud, together with an detailed analysis of the legislative evolution of the aspects related to fraud in the economic field. The basis of the research study in the documentation of the present paper consists of 273 specialized articles from economic, financial, legal and civil and criminal law journals, together with the analysis of all significant legislative aspects of post-december Romania evolution of law.

There is discussed nowadays the need to implement a model for detecting the risk of bankruptcy and fraud for small and medium-sized entities (SMEs) and brings to the fore an updated calculation formula for Altman economists. and Sabato which is liable to bring added value especially to the banking sector, as a key player in the lending process and economic partnership with economic entities (Tobback, 2017, p. 76).

The fear of failure in business, the desire for rapid over-enrichment of entrepreneurs, the mentality that invokes a series of taxes and taxes unduly paid (in the opinion of entrepreneurs in both developed and developing countries) are reasons invoked that have raised a number of questions at the level of economic regulators. Thus, the need to update the Classification of Occupations was imposed, thus appearing a new position, that of expert in economic fraud, a position derived from the statutory financial audit.

Corruption, irregularities and fraud are caused by a number of imperfections in the official legislation regulating both public and private sector activities. Unofficial norms are treated in the same way, among which we mention personal value systems, ethics and morality in business, as factors of occurrence of economic fraud in the context of the opportunity for fraud. The root causes are mainly:

1. Dysfunctions of the economic market;
2. Inadequate and outdated legislation;
3. The exercise of coercive power to a too small or too great extent by public administrations;
4. Lack of monitoring and control by the competent authorities;
5. Low educational standard, culture, morals, ethics and value system of economic actors below the minimum limits.

The stated purpose of EuroFisc is to limit the occurrence of breaches in the tax system and the elimination of clichés that make possible accounting and tax fraud, measures that provide (Huckfeldt, 2015, p. 60):

- An assessment of prevention techniques and the effectiveness of existing measures;
- Correction, repeal or adaptation of measures already in place in the Community bloc;
- An assessment of the awareness of economic actors on the effects of their actions (with the role of enhancing the value system);
- Manage anti-fraud measures in a practical, structured and targeted way.

A generally valid definition of tax evasion has been established in OECD reporting on the taxation of organizations, while distinguishing between two forms of evasion: acceptable (or tolerable) evasion and unacceptable (intolerant) evasion.

In the end, it all comes down to recognizing acceptable and unacceptable practices, the impetus transmitted by the business environment being usually the opposite of what the legislator wants.

The issue raised by economic fraud in general and insolvency fraud in particular is one that concerns all states of the world, more or less civilized. We have previously raised concerns about this issue, which seems to almost always break down legislative barriers, causing considerable losses in each financial year.

Economic models for bankruptcy risk have been a desire of the global economic market to standardize financial information long before the advent of international financial reporting standards. The usefulness of such a system is undeniable, being a measure of alignment of entities and overall understanding, from a single formula, of the activity of an entire business (Yusof, 2014, p. 426).

However, the issue of fairness and viability of implementing such a model arises. It takes into account the size criteria, the value of sales, the type of activity (production, services), the correctness of the data entered in the annual financial statements and the correctness of the primary accounting established by the entity (Power, 2013, p. 533).

The first large-scale model, considered successful in the analysis of bankruptcy risk in both financial practice and literature is attributed to EI Altman, published in its primary form in 1968, bearing the function name Z-score. Although it was considered a simple model at first sight, this model had an analogous effect on anticipating the risk of bankruptcy of an economic entity, being considered the same that the Black-Scholes model had on the evaluation of derivative financial mechanisms.

The model designed by Altman makes a prediction based on a discriminant analysis, being used to develop models for predicting and classifying the membership of some examinations to certain balance categories considered a priori. In the case of this model, the observation set is characterized by a number of economic entities classified as solvent and insolvent. It is considered a classification model with an accuracy of around 70%.

Similar to the Altman model, the Conan-Holder model (named after the economists who created it) was launched in 1979, a model that samples a number of 190 SMEs, also using a 5-variable formula, similar to the Altman model being quite large. The companies under analysis are in the field of manufacturing, construction companies, wholesale entities and transport companies.

The Taffler model did not enjoy as much notoriety as the Altman and Conan-Holder models, being based on the analysis of four balance sheet criteria, considered to be the most important (profit, current assets, short-term debt and total assets).

The Beaver model belongs to the English economist of the same name who can be said to have started the analysis of the risk of bankruptcy. The model is an unstylized form of the Altman model, the model of economist E.I. Altman being a processing of the Beaver model. The model is based on the analysis of 5 factors, namely the return on assets, current liquidity, the coverage ratio of the value of assets in working capital, the Beaver ratio and financial leverage.

In the second half of the 20th century, an attempt was made to stylize a model for detecting the risk of bankruptcy that was passable, accurate and provided relevant information on entities in all sectors of activity. Thus, in addition to the models mentioned above, there are also the models Eisenbeis (developed in 1977), Ohlson (1980), Jones (1987) and others less popular.

The work we want to do aims to build a model for detecting the risk of bankruptcy that can cope with a constantly changing economic market, increasingly volatile and exposed to the risk of bankruptcy through fraud and tax evasion, using the models, the concepts and theories used mainly by the researchers stated above.

In 2020, the topicality of the formulas, calculations and samples used is discussed. Basically, are these models more likely to detect the risk of bankruptcy with satisfactory accuracy? The current economic market "claims" that it does not.

4. Findings

Instinctively, public opinion tends to be the one in which economic fraud does not exist and cannot exist given the technological advance, globalization, opening of borders, the vigilance of the legislator who gives the impression of keeping pace with technology and increasingly diversified business methods. On the contrary, say experts in economics, economic fraud is now more prosperous, harder to detect, easier to do and more tempting (Livne, 2008, p. 21).

Elements related to fraud have been invoked and have been the basis for radical decisions, such as Brexit, the bankruptcy of Lehman Brothers, Citibank, Merrill Lynch and many other giants (Eisenberg, 2017, p. 53).

The social impact that the unfavorable effects of economic fraud (in the broadest sense of tax evasion in all its forms) have is a lack of personal and private investment, a limitation of economic confidence, a convulsive fear of the banking sector and related lines and limited action. stock exchange trading among the public (Pontell, 2005, p. 315).

Illicit financial flows are the total capital outflows of the private sector that come from and are used illegally. The loss related to economic fraud in the reorganization actions of private actors in 2017 amounted to 630 billion dollars, about 4.3% of the GDP of developing countries (excerpt from the OECD Report of July 2019). Data on economic fraud are almost always informative, as there is no real source of data on which databases can be processed, which are often extrapolations of detected cases. Judicial reorganization operations, including liquidation, insolvency and bankruptcy operations, raise serious questions at EU level about the fairness of economic acts provided by operators seeking insolvency against creditors 1, 2 or 3 years after the start of business. thus there is less of a problem of mismanagement and more of obscure interests towards financial and commercial creditors who have invested in good faith in the business of the third party. In this way, such an action generates a chain of dominoes, especially towards SME creditors and those who have invested considerable amounts in the assets of another economic actor requesting insolvency at a certain moment (Halbouni, 2016, p. 602). Insolvency actions cannot be banned, legal terminology is deeply rooted in today's economy (Mazumber, 2010, p. 130), considering (and being treated) as part of a person's life process (birth, resource consumption, benefit generation, end of life). The European Union, together with all regulators and reviewers, is aware of these issues and calls for morale, ethics, economic equity, respect for economic partners and reservations about the "boost" of business that many entrepreneurs have, investing in business. their most often borrowed amounts.

Addressing these considerations, tax regulators have identified a number of relevant ways to achieve economic fraud, especially in developing countries (including Romania). These include:

1. Incorrect financial reports, non-declaration of personal incomes or registered profits in order to evade the direct taxation of the elements of the nature of incomes or of the resulting profits;
2. Poor valuation of the value of trade in intrastat transactions, being a very widespread variant of capital transfer to states with a more precarious tax system, with many gaps or tax havens;
3. VAT fraud, representing the issuance of false declarations vis-à-vis value-added tax transactions;
4. Bribery, corruption, conflicts of interest and abuse of power by public bodies.

Competent bodies at all hierarchical levels (local, national, European, international) are looking for viable solutions to stop or limit as much as possible the effects of willful economic fraud. Thus, it is tried to bring under the umbrella of state bodies the newly established economic entities through financial support programs (to avoid external borrowing to support the activity) imposing strict

controls and firm steps in the beginning of economic activity. On this premise, programs such as SME Invest, Start Up Nation with adjacent programs, state-guaranteed loans and investment grants, started as pilot programs and have now become more widespread.

5. Conclusions

The concept of economic fraud is an economic and social phenomenon of major importance in the current process of increased globalization in which we take part, research and legislative treatment of this phenomenon concluding one thing, namely that the phenomenon may be the much limited, eradication in this area being practically impossible. Economic fraud in the reorganization of economic entities still requires analysis and research in order to arrive at a complete and correct perception of its size, the adverse effects it attracts on its own and the overall and detailed knowledge of the elements that make possible the occurrence of such a phenomenon.

The punctual treatment of the operational objectives of a field of knowledge has the role of formulating the main objective of the paper. We consider that by enunciating and analyzing all the constituent elements of an action proven to be economic fraud, a "recipe" of such an action can be made because, once the criminal mechanism is understood, the illicit element can be at least limited.

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Traditional and Online Assessment Tools for Learning English

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Abstract

As part of the English language teaching and learning process, assessing the students' knowledge and abilities has become challenging in this pandemic year and environment. Switching from one form to another, from "the paper-and-pencil language test" to an online devise poses questions and requires information technology-related skills. This paper aims at furnishing a whole range of sources showing how educators are considering the use of several assessment forms and how webinars and other online sources can help teachers all over the world make changes bearable, useful and enjoyable. This is a period of time when teachers need to be creative and think not only of better teaching and assessment methods, but also of starting or enhancing communication and interrelationship channels, improving the learning atmosphere in the virtual/online/remote "classroom".

Key words: ESP, business English, online teaching, assessment tools, webinars
J.E.L. classification: I21, I23

1. Introduction

In the age of globalization, being able to communicate through English (as a foreign language) is an essential requirement on the job market, at work and via social media. Teachers ask themselves about more efficient ways of training and assessing students appropriately in order to develop in them language competencies in accordance with their interests and needs. Assessing students' achievement may be difficult but rewarding since assessment provides information on the students' knowledge level, how much progress they have made, the efficiency of the teaching methods, strategies and materials, changes to be made (especially in the curriculum).

2. Theoretical background

2.1. The role played by online teaching and learning in the development of ESP skills

Over the past few months, online ESL/ EFL teaching, learning and assessment have extensively replaced the so-called traditional, face-to-face methods and techniques, contributing to the enhancement of the learners' skills; however, this fact was acknowledged by many researchers long before the pandemics. According to Belcher (2006, p. 149), the communication mediated by computers is characterized by a wide array of hybrid genres that combine speaking and writing (for instance, blogs, vlogs); in addition, it provides ESL/ EFL learners with a great variety of accessible and interesting motivating means that, unfortunately, are underexamined. The same author (p. 135) believes that those who specialize in ESP (English for Specific Purposes) teaching are, first of all, "needs assessors" but also "designers and implementers of specialized curricula in response to identified needs". The scholar further argues that, as far as ESP is concerned, the assessment of learners' needs underlies the other decisions taken in the teaching and learning process. Having in view that in ESP the focus falls upon the learners' needs, there are blurred lines separating "researchers and teachers, or curriculum designers, materials developers, and teachers". More

information on ESP can be found at "http://iteslj.org/Articles/Gatehouse-ESP.html".

Flowerdew (2013, p. 341) states that it is very cumbersome to sort out the learners' needs as they are complex and usually involve an array of responses. In this regard, the scholar stresses that the "increasingly technologized and globalized environment" influences the nature of ESP but also offers some exciting prospects to ESP practitioners. From the perspective of the above-mentioned author, needs (which can be tackled in various ways) include the learners' knowledge or the knowledge they wish to acquire and incorporate their "goals and backgrounds, their language proficiencies, their reasons for taking the course, their teaching and learning preferences, and the situations they will need to communicate in" (p. 325).

Bloch (2013, pp. 397-399) draws attention to the ever-changing technologies and to the importance of establishing the learners' specific needs, which, in their turn, influence the teachers' choices of the technologies that should be employed in order to meet the respective needs. According to this author, changes at the macro-economic level heavily influence the part played by technology in ESP courses and seminars. The capacity to access and employ new technology forms is paramount to the expansion of the knowledge economy. Teachers must be adaptable to the technology that provides opportunities to fulfill the needs of the students. In addition, it should be noted that the learners' enthusiasm and interest are often enhanced by such modern, challenging and innovative contexts (Buzarna-Tihenea, 2018, p. 215).

It is our belief (Nădrag, 2019, pp. 325-326) that by employing modern teaching approaches, activities and techniques, combined with digital media tools (such as videos and recordings) in ESP, courses and seminars can assist teachers and learners in reaching their course objectives and also help the latter acquire or develop their skills and knowledge. Due to these modern tools, teachers have developed various techniques in order to simplify and explain complex issues, to give learners the possibility to access the course or seminar materials (which can be reused or revised later by learners) and to encourage them to analyze the discussion topics or even to learn at their own pace. In her turn, Buzarna-Tihenea (2019, p. 232) states that despite the challenges they entail, new digital media tools can unleash both the teachers' and the students' creativity.

Bonsignori (2018, pp. 58, 68) underlines the usefulness of audiovisual products in "learning of language and culture" and in creating "useful material for ESP contexts". The author emphasizes the abundance of audiovisual resources, including in specialized fields. Among the benefits of using this method, one can notice the importance of non-verbal elements in meaning creation; other advantages are represented by the learners' exposure to English native speakers and to the language used in specialized contexts.

Lei Zang (2020, pp.1-2) advocates for a hybrid ESP teaching mode, combining "traditional classroom instruction and online distance instruction", the former stimulating the learners' motivation and the latter expanding educational coverage, as knowledge is taught by employing network distance teaching. According to Zang, the teacher uses the network to disseminate the electronic format of the seminar and course materials and afterwards s/he can teach his/her students; consequently, learners are able to save the teacher's materials and watch them any time they want. Therefore, the learners' acquisitions are influenced by their time planning as well as by their mental state and a hybrid ESP teaching mode would contribute to the growth of learning efficiency and to the revision of the obstacles and doubts faced by leaners.

Soliman (2016, pp. 123-128) stressed the idea that the 21st century learners could be engaged more efficiently in the learning process if teachers used digital learning techniques, switching from a "knowledge disseminator to a learner coach and helper". He describes the "Flipped Learning Approach". This method implies that, before engaging in course or seminar content at a more profound level in the classroom, students become acquainted with it in less formal contexts, outside the classroom, using technology. Consequently, by learning course and seminar content in advance, during class students are granted more freedom and independence in the learning process, they engage actively and are encouraged to carry out "higher order thinking tasks (application, analysis and synthesis)" and to debate important problems and topics with both their teachers and classmates. The author reports that Flipped Learning Approach has increased learners' performance, deepened their involvement, developed their problem-solving abilities and techniques, enhanced their collaboration competences and teamwork skills, and boosted their interaction with the teacher.

2.2. Assessments – at the center of the ESP process

Assessment has an outstanding place in the ESP teaching and learning process; on this occasion, the teaching staff can gather a large variety of pieces of information, which can assist them in boosting the efficiency and quality of the learning and teaching activities and techniques; moreover, teachers can also check whether progress has been made and spot and overcome the difficulties encountered by their learners (by analyzing the errors and mistakes and by having subsequent discussions with them). Assessment can be viewed as a process offering clues on how much students have understood and learned the concepts in English, the new terminology, the characteristic grammar structures, their ability to communicate in the target language, in general, and the application of specialized knowledge, in particular.

Tratnik (2008, pp. 6-13) believes that one solution would involve the distribution of tasks similar to real-life situations, where learners have to use ESP. This would imply the identification and thorough investigation of these situations, in order to identify the specific knowledge of the field and the specialized terminology that is likely to be used by learners in their future professional lives, enabling them to use ESP in real communication contexts. According to the author, a qualitative ESP test should be characterized by authenticity, accuracy, practicability and reliability (in particular as far as language ability scores are concerned); moreover, its effects should be beneficial also "in terms of administration, time, money and personnel".

As Tratnik puts it, these days, employers and various educational institutions require the use of foreign languages at certain levels and it is extremely important to meet these demands. Thus, nowadays, such ESP analyses represent crucial instruments that shape the learning and teaching processes and influence our educational society.

Kavaliauskienė and Anusienė emphasize the importance of alternative assessment, specifically seen as the learners' active involvement in the assessment of their development and performances, focused in particular on reflective thinking (2007, pp. 134-135). The authors also tackle the portfolio, "an element of authentic assessment", seen as "an alternative to traditional testing", a "comprehensive way to assess students' knowledge and skills", which ensures authentic assessments, active participation (on the learners' behalf) in the assessment process and the enhancement of the learners' reflective thinking.

Chen *et al.* (2020, p. 1) consider peer assessment to be a beneficial tool that engages learners in comparisons and reflections. When learners review their colleagues' work, since they integrate "the peer assessment mode", their learning enhances. In their investigations of learners' peer assessment, these scholars also focus on the learners' behavior patterns and on the connections between these patterns and their learning performance. According to the findings of their study, peer assessment (that also involves scoring and comment mode) greatly influences the learners' performance and encourages them to interact with their colleagues during the process. The scholars reach the conclusion that "both scoring and commenting tasks in peer-assessment activities could be a promising approach" (p. 19).

2.3. Effective training tools for teachers

In general, teachers have at their disposal various assessment tools for evaluating their students' progress: *formative* (it looks for any instruction gaps, thus, assisting students in their learning process), *confirmative* (to see if the way one is teaching is still as good as it could be), *summative* (to check at the end of a course whether learning was efficient and effective and to tackle its long-term benefits) (see "https://www.onlineassessmenttool.com/knowledge-center/assessment-knowledge-center/what-are-the-types-of-assessment/item10637"), *interim* (it measures the students' progress at different times throughout a seminar or course) (see "https://www.english.com/blog/finding-right-assessment-tools-classroom/"), *norm-referenced* (comparing a student's performance to an average norm), *criterion-referenced* (dealing with the learners' achievements in connection with pre-established criteria/ standards).

The COVID-19 pandemic has moved the education process online, with all the actors involved in the teaching and learning process struggling to face this difficult context and to adapt rapidly to these challenging circumstances. In this regard, applying online assessment tools has become

essential. According to Paramour (2020, pp.1-4), on the one hand, finding the best way to assess the students can be complex as a result of "working remotely, adjusting to an unfamiliar teaching environment, and using new technology". On the other hand, online teaching offers both teachers and learners new opportunities to use their critical and creative skills, to streamline the assessment process and to boost learning by exploring digital instruments and approaches. As Paramour puts it, when assessing students, the aim is to find accurate, beneficial and fair methods that engage them in contexts (that are practical in terms of implementation) similar to the real professional world, where they have to use their ESP skills.

As far as online Business English teaching, learning and assessment are concerned, there is a wide array of websites that can be used, such as "English Business online exercises" ("https://www.businessenglishresources.com/learn-english-for-business/student-section/practice-exercises-new/"), "Business English vocabulary exercises" ("https://speakspeak.com/english-grammar-exercises/business-vocabulary"), "Test Your Business English Skills" ("https://www.globifylanguages.com/business-english-tests/"), "9 Websites To Master Business English" ("https://www.englishhints.com/master-business-english.html"), "EnglishMediaLab" ("http://www.englishmedialab.com/business.html"), "British Council Business English" ("https://learnenglish.britishcouncil.org/business-english"), "engVid Business English video lessons" ("https://www.engvid.com/topic/business-english/"), "Business English Site" (for boosting the learners' communication skills in certain subject areas), "Breaking News English Lessons", "Business English Resources Free for Teachers and Students" (online library dedicated to business English learning), "Business English Pod" (business English lessons through audio podcasts), etc.

3. Findings

The coronavirus pandemic has made lots of teachers consider testing students in very different ways. An answer and support were provided by webinars held by Cambridge University Press and posted on YouTube (see "Assessment for online learning" – "https://www.youtube.com/watch?v=66apPB32YyE&list=PLpmCHL8PnXq88RiE_Bc0bAaotsDCHsEay&index=18&t=136s"), "Assessing Reading and Listening online" - ("https://www.youtube.com/watch?v=dRhu7NQE1PQ"), "Assessing Speaking online" ("https://www.youtube.com/watch?v=5LZvkZRsgXU"), "Assessing Writing online" – "https://www.youtube.com/watch?v=66apPB32YyE").

Another useful source could be "Online Assessment Strategies for Distance Teachers and Learners" ("https://www.3plearning.com/blog/online-assessment-strategies-distance-teachers-learners/"). It mentions peer assessment (students show their work and discuss it), independent projects (based on a topic, using brainstorming, research, problem-solving "or a mix of different learning opportunities"), jigsaw projects (a collaborative approach involving taking responsibilities), self-assessment (which involves scaffolding, followed by the administration of a Google Forms survey/ questionnaire and, afterwards, by "a self-assessment rubric"), online learning journals (a Word document, or accessing certain free blogging platforms, "video diaries or voice recordings for greater interactivity and engagement"), portfolios (see "cloud software such as OneNote or Google Classroom", "portfolio platforms such as Seesaw", video presentations and podcasts, online discussion).

The teachers interested in using *Microsoft Teams* can go to "https://www.youtube.com/watch?v=Z4I-bg2KgIA", in order to learn "How to create assignments and Grades in Microsoft Teams".

High school teachers, for example, can use *Google Forms* (released in 2008). Google Forms is a survey administration app included in the Google Drive Office suite along with Google Docs, Google Sheets and Google Slides and it is normally available through G-Suite with Google Chrome. It should be noted that various pieces of information can be collected from users by using Google Forms; this tool can take the shape of a personalized survey/ quiz. Once the information has been collected, it is automatically linked to a spreadsheet containing the answer key of the respective survey/ quiz. From this perspective, Google forms is an outstanding tool for assessing students. However, teachers need to have IT skills, while another condition is that both teachers

and students must have G-suite accounts granted by the school.

As usual, when preparing an assessment activity, a certain pattern should be followed: to assess the situation by setting the objectives, the online platform, the type of exercises or activities, the time allotted to each exercise, the ways of marking them (in this case they are automatically marked). The results are shown instantaneously, so that the students can find out the score right away. Afterwards, the teacher has the possibility to provide feedback in the form of comments and urge them to pay more attention to certain aspects.

When designing the assessment form, the teacher has to balance the test items, taking into consideration criteria such as type (i.e. direct or indirect), number, order of test items and time allocated to each section. It should be noted that online assessments by forms provide both students and teachers with the opportunity to save time for solving or marking and multiple-choice items entail accurate scores. However, teachers should be careful if they include items that require students to type words, phrases or paragraphs, as some online assessment forms are sensitive and the students' answers should be checked manually. Doing a weighting score should also be taken into consideration; for instance, more difficult tasks (such as the writing ones) should be associated with more points, while multiple choice items should bring fewer points. Before administering the test to real students, teachers should try it out, in order to make sure that it can be accessed and solved properly; on this occasion, the teaching staff members are also able to pinpoint and redress any possible errors and check whether the test timing has been set correctly, in accordance with the number of tasks and with the difficulty level.

In order to avoid cheating, teachers can adopt some strategies, such as setting time limits (if not for each assessment task or section, at least for the entire test), restricting the entire form to only one response (i.e. once a task is solved, students cannot go back and redo it), designing tasks whose answers cannot be easily found on the internet or in the textbook, demanding learners to keep their cameras and microphones on during the test.

4. Conclusions

The information provided throughout the article has shown alternative ways of performing various types of assessment in the pandemic, including formative or summative ones. Although the teaching and learning conditions have changed, there are methods and strategies which can bring learners together, developing their communication and team working skills as well as their capacity to turn threats and hardships into learning opportunities.

We live in an era dominated by technology and every minute brings into the limelight new online assessment possibilities and creative solutions to various drawbacks. Having in view advantages such as flexibility, time saving and cost effectiveness/ efficiency, online assessment might represent the future that has been unexpectedly speeded up by the SARS-COV 2 pandemic.

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Industry Redesign Directions in the Context of the COVID-19 Pandemic

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Abstract

The article presents the main changes that have occurred in key areas of the economy (hospitality, education, culture) severely affected by the COVID-19 pandemic. In parallel, the answers of the main economic agents, the governments, but also the challenges to which we have to find solutions in the future are highlighted. Representing a review of the specialized literature published in the period 2020-2021, after the onset of the pandemic and the implementation of measures to limit its spread, this article captures the specific challenges that each of these three areas must face and it identifies the possible public policies which can be applied in the immediate and future perspective in order to improve the situation of these economic sectors, in particular, and the economy as a whole, in general. The article highlights the role of the Fourth Industrial Revolution in finding appropriate answers to how economic development will take place in the future so that it may become safer, more sustainable, and more inclusive.

Key words: industry redesign, Imagination Age, education, hospitality, culture
J.E.L. classification: A14, I20, L83

1. Introduction

On December 8, 2019, the Chinese government announced the presence of a new virus in the Wuhan area, as well as the emergence of a new disease called COVID-19. Since that announcement, the world has recorded an accelerated increase in the number of people infected with this new SARS strain (SARS-COV-2), the epidemic spreading at the global level. It is the first pandemic recorded in 100 years since the infamous Spanish Influenza, which killed between 50 and 100 million people in 1918-1920.

The new COVID-19 has been characterized by a very high transmission rate, including from asymptomatic persons, a particularly serious aspect given that at least 40% of the people remain asymptomatic. Many other factors that have favored the extremely fast transmission were recorded, including airborne transmission, vulnerability of elderly people with various comorbidities (underlying medical conditions), sustained physical contact between infected and uninfected people, etc.

The global response to limiting the spread of the virus was delayed and materialized in travel restrictions, online activities, including online educational activities, and physical distancing. Most countries have closed all or part of their borders, these restrictions affecting the vast majority of the population and the global economy, as a whole.

Given the millions of unemployed people registered in various sectors of the economy, the uncertainty regarding economic recovery, and the ongoing fear of a continuing COVID-19 crisis, the global economy is going through an unprecedented crisis (i.e., a crisis within the real economy in terms of both demand and supply).

2. Theoretical background

In an article published in April 2020, Sanjeev Khagram (2020), an expert in global leadership, international political economy, sustainable development, and data revolution, argued in favor of using the pandemic crisis as an engine, a chance, and at the same time, of transforming the world into a safer, more sustainable, and more inclusive one. Invoking the arguments of biologists Stephen Jay Gould and Niles Eldredge, who considered, in 1972, that evolution is not a gradual process, but a process which takes place in leaps, the episodes of maximum tension, the crises, leading to such revolutionary leaps, Khagram believed that the current COVID-19 pandemic would force, through the extraordinary pressure put on individuals, organizations, society in general, the acceleration of the Fourth Industrial Revolution (FIR - 4IR), which will set fire to the boundaries between the physical, the digital and the biological world.

Experts believe that the current state of affairs will lead to structural changes in the relationship between the environment and the way we conduct ourselves at a global level. There is the question of how we will use artificial intelligence (AI), the Internet, social media, virtual and augmented reality in the economic transformation. Will the anthropocentric (the Anthropocene) development, in which we have forced the environment to adapt to the human needs, remain standing, or will we use 4IR to re-engage in a new relationship with the environment?

Will 4IR be a challenge that will lead to the retraining of the labor force, which is now being forcibly thrown out of the labor market, or will we try to force a return to the before the pandemic "normalcy"?

It is clear to us that no matter how the world repositions in the future, we need more cooperation. Absurdly, the states behaved during the pandemic by practicing sanitary isolationism and by interrupting cooperation. The cry for help from the states severely affected by the health crisis, Italy, Spain, etc., brought the governments back to reality and cooperation began to manifest itself. The emergence of the anti-COVID-19 vaccines is a sign that the scientific world has understood the message. However, there are many, many more steps to take. Among the necessary steps to be taken, according to experts, is the awareness that imagination and creativity will be the main resources to be used in the future to obtain economic value; they will be the main tools/means of work. The Imagination Age, as a theoretical period beyond the Information Age, will bring to our attention unprecedented challenges, challenges from which we will have to choose the future solutions.

A key concept is that the rise of an immersive virtual reality – the cyberspace or the metaverse – will increase the value of the "imagination work" done by designers, artists, etc. over rational thinking as a foundation of culture, but mainly in economics. 4IR kicked off the Imagination Age, i.e. a moment when the world will realize that everyone must benefit from investments in global public goods, including technology, creativity, and ethical goods.

Until the total reconfiguration of the global economy, which we do not yet know what it will look like, only a few certain paradigms of the future development being foreshadowed, we are free to use our imagination, creativity, and ability to use technology to rethink the near future starting from the few realities we have noticed since the beginning of the crisis. The changes that have already manifested in several sensitive sectors of the economy: education, culture, the hospitality sector, provide us with a first picture of the near future. The question is how many of these will turn out to be irreversible and how many will be resorbed. When and how much will we be able to return to the "normalcy from before"? If we do return…

3. Research methodology & results

This article examines the specialized literature published in 2020-2021 on how the measures taken by the states / governments to limit the effects of the pandemic have produced negative effects on the economic activity, especially in hospitality, education and culture, sectors in which physical presence is absolutely necessary in order to carry out specific activities. The disruptions created, the ways in which the industry has adapted and redefined (redesigned) itself have been investigated and an attempt was made to identify solutions, public policies proposed by states / governments / organizations in the form of state aid and other types of support. What we found was that, unfortunately, in spite of all the efforts made, some negative effects can no longer be salvaged. At

the same time, new challenges have emerged which can be transformed, with the help of science, technology, into opportunities for future economic development in an unprecedented and often unimaginable manner.

3.1. Hospitality

The Coronavirus crisis (COVID-19) has hit the tourism economy hard, this sector recording a huge shock. According to OECD estimates, the decline recorded in this activity could reach 60%.

Industry and governments are focusing their efforts on three directions:

- Lifting restrictions, access to liquidity, and application of travel safety protocols;
- Restoring trust and stimulating demand;
- Preparing plans for industry recovery, repositioning various destinations, encouraging innovation and investment, as well as rethinking/redesigning the entire sector.

A 2020 survey conducted in the United States, two months after the pandemic was declared, highlighted the emergence of 8 million unemployed people and estimated a $240 billion drop in business during 2020 (Gursoy & Chi, 2020). The hospitality industry manifests a very high elasticity in terms of demand. With savings covering only 16 days of operation, extremely little compared to other industries that can operate for several months without major disruptions due to the declining demand, the hospitality industry is perhaps the most affected one worldwide. The problem is that the rebound does not show a satisfactory dynamic either. The same Survey (Gursoy & Chi, 2020) shows that only 50% of restaurant customers want to return to hotels and restaurants in which the activity takes place indoors and only 50% want to travel in the near future. Given the high operating costs, the industry is highly dependent on demand and stimulating demand becomes the most important element from the perspective of returning to the pre-pandemic figures.

Considering that only a third of restaurant customers and only 40% of hotel customers are willing to pay more for additional sanitation measures, while only 65% of restaurant customers and only 70% of hotel customers agree to use technology in order to maintain physical distancing, things get very complicated. Because all this means costs, the figures are not encouraging at all and our estimates show that a consistent number of scientific studies are needed and also a special effort in the research related to marketing and tourism management to find the right solutions so as to bring customers back to hotels and restaurants.

Their retransformation into tourism consumers does not come naturally. Again, we come back to the issue of using creativity and imagination (innovation), based on processing a sufficiently large database, to find suitable redesigning solutions for packages/tourist offers appropriate to the new conditions. Redesigning tourist packages, rethinking destinations and their proper promotion means a combined scientific and managerial effort. We need to put to work science, data, but also imagination, creativity, and innovative capacity in order to design a fast and adequate action. The industry is changing, people have other needs, new health needs are added to the known needs, and people are more or less willing to pay for it.

This conclusion, which we have already outlined by analyzing the studies published during this period regarding the changes in the field of hospitality, is somewhat also valid for the other two sectors which we have further analyzed: education and culture.

3.2. Education

The education sector is the most dramatically affected by the pandemic, at all its levels. Recent studies (United Nations, 2020; Di Pietro et al, 2020) have shown that over 30% of Skills gaps lost during this period can remain irreversible. 25% of students do not gain basic knowledge. The risks of women and children abuse, especially girls, have increased, the risks of malnutrition have increased, and there have been consistent limitations regarding parents' ability to work. All of these are long-term effects. The Human Development Index shows a sharp drop during the pandemic. It has collapsed!

What problems do we have? In COVID's time, we must learn to learn. Learn to learn! This is the key issue. How do we solve it? The answer is very different in developed countries compared to the underdeveloped ones. We know what we must achieve: Reimagining the educational system.

However, we do not know how to do it.

As we have stated at the beginning of the article, we will obtain more versions in this area, too. Imagination Age, based on existing data, will give us options. What we will choose is still quite unclear. However, a few public policy ideas emerge from the basic idea, as in the case of tourism, i.e. we must bring the target audience - pupils, students - where necessary - into laboratories, classrooms, amphitheaters, face-to-face with the teachers (virtually or in-person). But how many of these activities will take place physically and how many will remain online, in the near or distant future, must also be analyzed and studied. What do we know?

We know that the spread of the virus must stop, we know that the reopening of the schools must be inclusive, we know that the actors involved - teachers, but also doctors, must get coordinated, we know that funding for education and health must become, because it has not been so, a TOP PRIORITY.

The education system must become resilient to shocks of this type or of another nature. It did not turn out to be so. We had no tools; we had no qualifications. Measuring the negative effects recorded is not yet definitive, but it is clear that we need research in order to define which are the most effective tools and qualifications that can and should be used for the educational process to continue at an appropriate level in extreme situations when classic, face-to-face study options are not possible.

3.3. Culture

The OECD Study tells us that in 2020 spending on culture and entertainment has substantially diminished. The drop has been sudden. More than 70,000 cinemas in China, 2,500 in the United States, and 9,000 in Europe closed. The box office collapsed. Stock market prices for film chains fell by more than 50%.

All countries have thought separately, or collectively, about various rescue plans. Rescue plans!

The answers have been extremely varied. Individually, the countries postponed the payment of invoices, payments of taxes, settled solidarity funds to support the rescheduling of loans (France); used aid packages for employees and small businesses, resorted to the creation of an emergency fund for the film industry, the application of emergency aid for film producers, for distributors, the suspension of payments (Germany); aid schemes for the film and audiovisual industry (Spain, Italy), etc.

At the European level, there have also been collective responses. The European Commission adopted a comprehensive Temporary Framework economic response, in which a derogation was made from the State aid scheme until December 2020, plus 100 billion aid for the Member States, usable in this sector as well. The Council of Europe, in a meeting with the ministers of culture of the European countries, generated Creative Facility, which produced changes regarding the Schemes for mobility and transition to the digital age, proposing a budget for achieving this goal for 2021-2027. #CreativeEuropeAtHome has appeared.

The European Parliament has also aligned itself with all this reconstruction effort and created the Cultural and Creative Guarantee Facility, which will translate into increasing the European Budget and building the European Fund for Strategic Investments.

Festivals have moved online, movies have been promoted online in parallel with the cinema networks, we have moved to HomeVideo, but it is still not enough. Entertainment means co-participation, it means spectators. And the same question arises: How do we bring them back to theaters when, in a survey conducted in the USA, just over 50% admit that they would like to re-enter theaters and cinemas?

The answer to this question is again difficult to find. We have managed to collect data, numerous studies have been conducted, but the answers are still missing, or they are unconvincing. Advertising, management, persuasive messages that we are medically safe. A mix that is difficult to obtain, having effects that are difficult to quantify. This study also cannot claim to offer solutions, especially since it is a study that does not represent a quantitative analysis, but it is in the area of descriptive studies based on the investigation of literature and various surveys conducted this year. However, we have chosen three areas which have been extremely affected by the pandemic and we have reviewed the measures which were taken to limit its effects, precisely in order to be able to formulate a few conclusions about what we could do in the future - a future about which we do not know if it will

resemble the present, the recent or the most distant past.

4. Conclusions

If according to Yuval Noah Harari (2014), what transformed us into Sapiens, into this species completely different from what had existed on Earth in the past, was communication, which brought our ability to share knowledge and act together, we must not lose exactly this good thing, if we want to self-perpetuate as a species and to evolve further.

We have been hit in our ability to socialize, being forced to distance ourselves physically, but we must continue to communicate and, especially, to cooperate. Should we want to make a comparison with what happened in the past, we know that the first wave, the Industrial Revolution of the late 18th century, marked by the steam engine's arrival, allowed us to move from manual to mechanized work, the Second Industrial Revolution, the second wave, led, in the middle of the 20th century, to the organization of assembly lines and mass production, the third wave, as defined by Alvin Toffler, marked the transition to the information society. We are in the fourth wave, in which artificial intelligence, strongly manifested in the widespread use of Big Data, of bots (robots), etc. has its say - 4AI, Information Age. But to know where we are heading, we need to put creativity and imagination to work. These are the future means of work that will operate the immense data processing technological capacities (scientifically obtained) to offer us the versions of the future, i.e. the evolution in leaps that we have mentioned. If in the case of the first three waves we knew or sensed what was to come, at the moment things are accelerating so fast that it is difficult to have only one predictable version of the future. It is clear that we will get more versions and we will choose, let us hope, with reason, the best one. Everything changes at lightning speed. No one could have predicted a year ago that schools would be closed, cinemas too, that in Europe, for months, one will have nowhere to drink coffee. The pandemic has changed us completely. We maintain physical distancing from our relatives, from friends, we do not hug our parents and children. However, we must keep creativity, communication, and cooperation. These have taken us where we are (Sapiens, maybe even Deus/God), they will also offer us the solution in the future. Remaining in this paradigm, **creativity, communication, cooperation**, we will find the answers for humanity's further development. Whether we return to the classrooms, cinemas, airplanes, restaurants, entirely or in part, we will surely find solutions to meet our needs and help us progress. But only within this paradigm. Otherwise, the world will enroll in a disciplined way and will march on the path of failure.

The New European Bauhaus (European Commission, 2021), a creative and interdisciplinary initiative, convening a space of encounter to design future ways of living, as an approach located at the intersection between science, art, technology, culture and imagination can be an effective response to the present and, especially, future challenges, laying the foundation for building a more sustainable, inclusive and beautiful world.

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Financing Green Deal in Romania

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Abstract

The present paper is a short description of the European Green Deal and its main features at the EU level while the in depth analysis is made for the financing sources available for our country. While the theoretical foundation of Green Deal has been acknowledged, the research on its funding, especially at national level has only been published recently or is forthcoming.

Based on the research on the current provisions and EU framework on the European Green Deal, this overview may be helpful to recognize and how to implement the Green Deal by our country from financing perspective.

Key words: green deal, climate change, EU Emission Trading Scheme, EU funding
J.E.L. classification: Q59

1. Introduction

In December 2019, the European Commission presented the European Green Deal which is an ambitious package of measures ranging from ambitiously cutting and even reducing to zero greenhouse gas emissions; investing in state of the art research and innovation; preserving Europe's natural environment.

From climate perspective, the European Green Deal follows the principle "no person and no place is left behind" and sets the target for the greenhouse gas emissions reduction at least 55% by 2030, as well as zero GHG emissions by 2050 ("no net emissions of greenhouse gases").

The European Green Deal covers all sectors of the economy, notably transport, energy, agriculture, buildings, and industries such as steel, cement, textiles and chemicals.

First climate action initiatives under the Green Deal include:

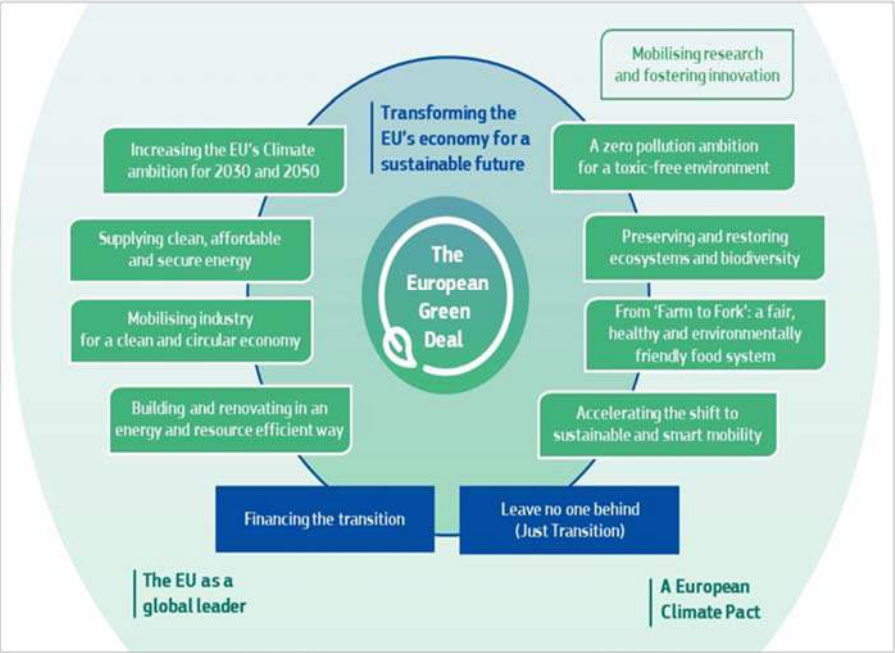
1) European Climate Law (by turning the 2050 climate-neutrality objective into EU ruling);
2) European Climate Pact (engaging in climate action the citizens and all parts of society);
3) 2030 Climate Target Plan (by 2030 reducing emissions at least 55%).

The European Green Deal provides an action plan to increase and support the efficient use of resources by moving to a clean, circular economy and repair biodiversity and reduce pollution as much as possible.

The Just Transition Mechanism represents the EU financial support and technical assistance to help those that are most affected in the process towards the green development of the economy. In this respect, over the period 2021-2027 , at least €100 billion will be transferred in the most affected regions .

The Sustainable Europe Investment Plan will be the tool used to implement and finance the European Green Deal. During the next 10 years, this plan will mobilize through the EU budget and the associated instruments at least EUR 1 trillion of private and public sustainable investments. The Sustainable Europe Investment Plan contributes to the implementation of the Sustainable Development Goals and it is the pillar EU`s climate policy.

Figure no. 1: The European Green Deal



Source: (European Commission, 2019)

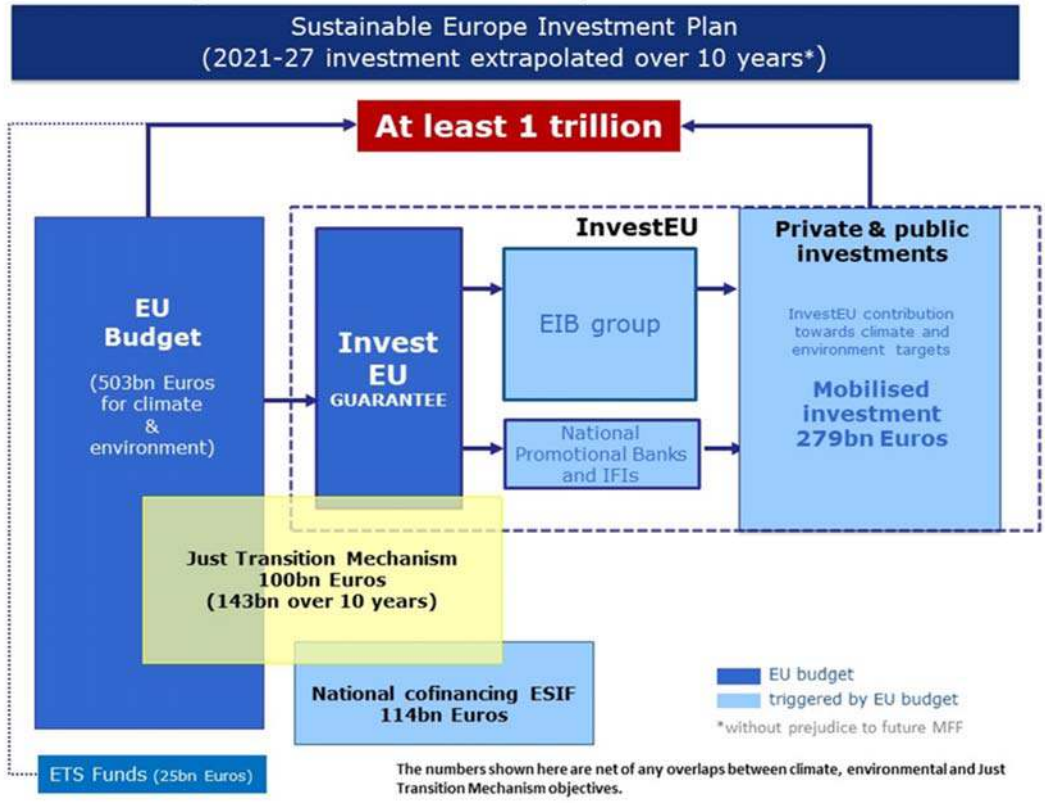
The transition to a climate-neutral, green economy supported by the the Sustainable Europe Investment Plan will be based on three dimensions:

- ✓ mobilising investments with a greater share of public spending to climate and environment; in the regions covered by the Just Transition Mechanism helping public funding based on the support given by the private investments;
- ✓ the development of institutional and legislative framework for private investors and the public sector;
- ✓ specific support to public administrations and project promoters in the development and implementation of sustainable projects.

Considering the dynamic and the current status of the EU legislative and institutional framework, the Green Deal is the main pillar of the EU's long-term strategy for economic growth. In the light of the National Plan for Investment and Economic Recovery, Romania will have to use European resources as efficiently as possible while our economy foster the transition to sustainable development and green energy. By 2030 the "new model for economic development" will support investments of approximately €100 billion in various sectors such as infrastructure, agriculture and health.

The use of European funds by our country is directly linked to the implementation of the Green Deal, digital transformation of the society, the Cohesion Policy and Common Agricultural Policy. The competent authorities with the European Commission established these priorities for the next financial period 2021-2027.

Figure no. 2: Financing elements under the Sustainable Europe Investment Plan



Source: (European Commission, 2019)

2. Theoretical background

Communication from the Commission "Sustainable Europe Investment Plan European Green Deal Investment Plan" (2020) 21 final states that: "The European Green Deal is a response to these challenges. It is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use". At the same time, "To achieve the ambition set by the European Green Deal, there are significant investment needs."

The Sustainable Europe Investment Plan is based on the following pillars in order to mobilise at least EUR 1 trillion:

- the EU budget – with more than 503 EUR billion allocated to climate, environment and sustainable development objectives; this will trigger additional national co-financing of EUR 114 billion;
- the InvestEU Fund - will leverage around EUR 279 billion of private and public climate and environmentally-related investments; by 2025 the EIB will double its climate target from 25% to 50% and become Europe's climate bank ;
- the Just Transition Mechanism, to leave no one behind – the financing will be focused on the regions and sectors that are most affected by the transition because they depend on fossil fuels or carbon-intensive processes; other programmes and funds (e.g. the European Regional Development Fund and the European Social Fund Plus) will support the Just Transition Mechanism ; contributions from InvestEU and the EIB and financing from the EU budget, co-financing from the Member States ;

- the Innovation and Modernisation funds (not being parts of the EU budget) - specific financing mechanisms under the EU Emissions Trading Scheme providing at least some EUR 25 billion;
- other relevant partners who could bring additional sources and innovative ways to implement the plan.

2.1. Financing the Green Deal in Romania

Based on the next Multiannual Financial Framework , Romania has allocated to the implementation of the second objective of the Cohesion Policy ("A greener, low-carbon Europe by promoting the transition to clean and equitable energy, green and blue investment, the circular economy, climate change adaptation and risk prevention and management") an amount of 8,222 EUR billion; in addition to this, the amount of 1,766 EUR billion is allocated to Just Transition Operational Programme. Out of the total of 31 EUR billion dedicated to the budget of the Cohesion Policy, this amount show us that 32,21% (9,988 EUR billion) from the financing received by Romania from the EU budget will accommodate the objectives "A greener Europe" and "Just Transition " of the Cohesion Policy. In addition to this, an amount of another 1,15 EUR billion is available from EU made of 1 EUR billion through the New Generation EU and 0,15 EUR billion.

The Regional Operational Programmes through the second objective of the Coehesion Policy"Greener Europe" finance the following actions:

a) mobility, the consolidation of the transport infrastructure:
   - development of railway access networks to the central and global TEN-T transport;
   - reducing carbon dioxide emissions in municipalities/cities and their functional area through investments based on sustainable urban mobility plans (regional or local roads - clean urban transport and rolling stock infrastructures, cycling and alternative fuels infrastructures);

b) urban regeneration;
   - regeneration of degraded and abandoned urban spaces, functional reconversion of degraded / unused / abandoned vacant lands and their re-inclusion in the social / economic circuit
   - measures and investments in green infrastructure
   - investments for urban regeneration and security of public spaces

c) urban transport (metropolitan trains - Bucharest, Timisoara, Cluj, Iasi, Sibiu, Brasov = 350 EUR million form EU budget);

d) energy efficiency in buildings for urban areas with solid fuel
   - investments in the renovation of public and residential buildings in order to ensure / improve energy efficiency according to the potential to reduce consumption, respectively reduce carbon dioxide emissions;
   - investments in additional energy production capacities from renewable sources in order to increase the share of these sources in the enery consumption of buildings.

Just Transition Mechanism/Fund (Just Transition Operational Programme) is design to achieve by 2030 the reduction of greenhouse gas emissions (GHG) from 50% to 55%. The mechanism will lead new transformed EU society in which, by 2050, there should be no more net greenhouse gas emissions and economic growth should be decoupled from use of resource.

The specific objective of this JTF is thus to support the investments needed to help the territories where the negative effects of the transition are most pronounced economically and socially, in order to combat and alleviate regional disparities. The territories concerned include, first and foremost, the coal-fired regions, subject to the transformation of industrial processes previously heavily industrialized regions and which will support the energy transition.

The following areas are mentioned to be supported:

- Hunedoara and Gorj - coal extraction and use for electricity and heat production, responsible for 30% of GHG;

- Dolj, Galați, Prahova and Mureș - Use of coal for electricity and heat production, or in heavy industry (chemicals, metal processing cement, fertilizers, etc.), responsible for 35% of GHG.

Any other proposals related to potential areas that could benefit from support (eg Maramureș / Baia Mare-Baia-Sprie, Bacău / Asău-Comănești-Dărmănești-Onești, Caraș-Severin / Reșița-Moldova Nouă-Anina, Alba / Zlatna -Cugir, Sibiu / Copșa Mică, Brașov / Victoria-Făgăraș, Harghita / Bălan) must be negotiated with the European Commission. The justification for choosing these areas will take into account the negative effects of the transition at economic and social level.

The Sustainable Development Operational Programme has as major objective the improving competitiveness and supporting innovation, promoting green investments, adapting to climate change and a proactive response to potential risks, ensuring the access of people to infrastructure and connectivity of cities, developing quality public services for the benefit of its citizens.

The areas financed are: energy efficiency, energy transmission and storage networks; development of water and wastewater infrastructure and the transition to a circular economy; promoting adaptation to climate change, prevention and risk management; waste management; biodiversity; environmental protection by conserving biodiversity, ensuring air quality and remedying contaminated sites.

On the other hand, considering the pattern given at EU level by the the Sustainable Europe Investment Plan and from the perspective of climate specific tools, financing the Green Deal in Romania can be achieved mainly through the Modernization Fund, specific financial mechanism under the EU Emission Trading Scheme.

For the period post 2020 the EU Emission Trading Scheme includes, inter alia, specific financial mechanisms such as the Innovation Fund and the Modernization Fund.

The main features of the Innovation Fund are: all Member States are eligibile; 450 million EU allowance will be available in the fund and EIB will monetize and managed the fund; the projects are selected on the basis of transparent and objective criteria, taking into account how these projects contribute to the reduction of greenhouse gase emissions; projects must have the potential to be widespread or significantly reduce the cost of transition to a low-carbon economy; projects involving the CCU (Carbon Capture and Utilisation) must ensure a net reduction in emissions and the avoidance or permanent storage of CO2; supported technologies must not be available on large scale on the market.

The key characteristics of the Modernization Fund are:

- the Republic of Bulgaria, The Czech Republic, the Republic of Estonia, the Republic of Croatia, the Republic of Hungary, the Republic of Latvia, the Republic of Lithuania, the Republic of Poland, the Republic of Romania and the Slovak Republic (same beneficiaries as for derogation under the provisions of article10c) represent the eligibile Member States;
- for the period 2021-2030 there will be around 310 million EUAs which will be auctioned by the EIB (the monetization of EUA);
- 310 million EUA will be received by Romania , meaning 11.98% from the fund; the carbon price at the time of the auction will have an impact on the level of revenues;
- at least 70% of the financial resources resulted from the Modernization Fund are used to support investments (projects) provided that the remaining costs are financed by private legal entities: production and use of electricity from renewable sources; improving energy efficiency, without production of energy using solid fossil fuels; energy storage and upgrading of energy networks, including pipelines for district heating plants; electricity transmission networks and increasing interconnections between Member States; support for the transition to a low carbon economy in the regions addicted to fossil fuels so as to sustain the relocation, vocational reconversion and improvement of workers' skills, education, initiatives for job search and start-ups in dialogue with social partners. Are also eligible investments in energy efficiency in transport, construction, agriculture and waste.

3. Research methodology

Based on the research on the EU policies on Green Deal , this overview may be helpful to recognize the features of the European Green Deal and guide its efficient implementation in our country in line with the established national priorities for the next financial period 2021-2027.

Subject to this, I analyzed and assessed relevant data and documents regarding the use of European Funds and the EU ETS specific mechanisms elaborated by the European Commission, Ministry of European Funds, European Environmental Agency, European Energy Exchange. More specific, I compared long and short time data series on the above mentioned area.

4. Findings

It would be useful and pragmatic to approach the Green Deal as the milestone for Romania`s long term investments and economic growth. On the one hand, there is a need for increasing the native potential in many of the areas concerned and on the other for a better connection of our economy with those of other Member States. In this respect, it will be possible to mobilize significant financial resources from both European funds and international financial institutions and markets. Overall, there is a need for a strategy at the level of the national economy coordinating and ensuring the synergy of the sectors that significantly contribute to GDP growth (eg industry, construction, agriculture) and the sectors with a high share of greenhouse gas emissions at national level (eg transport, energy). This strategy, based on a comprehensive analysis, must be carried out with the participation of all authorities with responsibilities in the field, especially from the perspective of identifying and implementing the necessary measures to adapt RO to the new European development paradigm, including the opportunities it offers from economic, environmental/climate change and social point of view.

Comprehensive measures will be needed, with precise medium and long-term national targets in various areas such as energy efficiency (seen as a less expensive source of energy generation), energy infrastructure and storage capacity (including smart grids, charging networks for electric vehicles), directing industrial production, air pollution (eg massive replacement of wood-based heating devices or polluting vehicles), forest management, land use and land use planning (eg: forestry target), agriculture, water quality etc.

Considering the pattern given at EU level by the Sustainable Europe Investment Plan and following the 3 dimensions of the sustainable development, financing the Green Deal in Romania can be reflected through the EU budget as follows:

- the economic aspects – via the Regional Operational Programmes with a budget made of 12, 86 EUR billion out of which 9 EUR billion from EU and 3,86 EUR billion from state budget; within this budget the second objective of the Coehesion Policy "Greener Europe" has an allocation related to climate, environment and sustainable development measures representing 3, 46 EUR billion out of which 2, 45 EUR billion from EU and 1, 03 from state budget – in addition to this amount, for the scope of energy efficiency in buildings for urban areas with solid fuel there is an amount of 0, 857 billion out of which 0,600 EUR billion from EU and 0,257 EUR billion from state budget;
- the social aspects – via the Just Transition Operational Programme with a budget made of 1,03 billion out of which 0,766 EUR billion from EU and 0,265 EUR billion from state budget; in addition to the this, an amount of another 1,15 EUR billion is available from EU made of 1 EUR billion through the New Generation EU and 0,15 EUR billion from state budget;
- the environment aspects – the Sustainable Development Operational Programme with a budget made of 6,62 EUR billion out of which 3,922 EUR billion from EU and 0,692 EUR billion from state budget.

The JTF is not a fund for the energy transition and is focused on the economic and social cost of the transition (economic diversification, requalification, education, etc.). The following areas are to be supported: Hunedoara and Gorj - coal extraction and use for electricity and heat production, responsible for 30% of GHG; Dolj, Galați, Prahova and Mureș - Use of coal for electricity and heat production, or in heavy industry (chemicals, metal processing cement, fertilizers, etc.). Any other

proposals related to potential areas that could benefit from support (eg Maramureș / Baia Mare-Baia-Sprie, Bacău / Asău-Comănești-Dărmănești-Onești, Caraș-Severin / Reșița-Moldova Nouă-Anina, Alba / Zlatna -Cugir, Sibiu / Copșa Mică, Brașov / Victoria-Făgăraș, Harghita / Bălan) must be negotiated with the European Commission.

The Modernisation Fund is one of the two new funding mechanisms of the EU ETS for the period post 2020. The 10 eligible Member States are those with a Gross Domestic Product per capita below the 60 % Union average in 2013: Romania, Bulgaria, Czech, Estonia, Croatia, Hungary, Latvia, Lithuania, Poland and Slovakia. In the period post 2021-2030, according to market analysis forecasts, the average price of the EUA could be 30 euro/EUA. In this context, the amount that Romania could benefit from the Modernisation Fund represents 1,114 EUR billion EUR, calculated with a volume of 37,138 millions EUA.

5. Conclusions

The European Green Deal represents the vison with policies and measures for the next decade within the EU economy: biodiversity (measures to protect our ecosystem); agriculture (based on the "from Farm to Fork" principle will shape ways for more sustainable food systems; sustainability in EU agriculture and rural areas via the common agricultural policy - CAP); clean and green energy; sustainable industry (more sustainable, environmentally friendly production cycles); building and renovating (cleaner construction sector); sustainable mobility (more sustainable means of transport); phase out pollution (cut and reduce pollution rapidly and efficiently).

When implementing the Green Deal in our country from environmental perspective, the available amount form the EU budget will be represented by the 11,138 EUR billion, including the finance through New Generation EU.

The implementation of European Green Deal will support the local communities most affected by this transition , such as : Hunedoara and Gorj; Dolj, Galați, Prahova and Mureș , Maramureș / Baia Mare-Baia-Sprie, Bacău / Asău-Comănești-Dărmănești-Onești, Caraș-Severin / Reșița-Moldova Nouă-Anina, Alba / Zlatna -Cugir, Sibiu / Copșa Mică, Brașov / Victoria-Făgăraș, Harghita / Bălan) must be negotiated with the European Commission.

Considering the climate specific financing mechanisms, in addition to the abovementioned amount, there will be another available 1,114 EUR billion EUR from the auction of the EU allowances under Emission Trading Scheme. Romania could benefit from Modernization Mechanism through 1,114 EUR billion EUR by taking into account 37,138 millions EUA. The fund will go (in 10 lower-income Member States, including our country) to the power sector (namely its modernization and for the diversification of the energy mix), increasing the energy efficiency and facilitating the transition to low –carbon economy.

The Innovation Fund will have 450 million EUAs supporting innovative technologies and state of the art innovation in industry . The funding available will represent 13,5 EUR billion and part of this amount could be used by the private romanian companies covered by the EU Emission Trading Scheme.

Implementing the Green Deal in our country from environmental and climate perspective will be supported by more than 12, 252 EUR billion, including the finance through New Generation EU and the mechanisms under Emission Trading Scheme.

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Some Aspects Regarding the Fiscal Approach in Economic Classicism

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Abstract

Finances have appeared on the stage of social-political life on the background of the development of the production factors and of the monetary relations, with the appearance of the state and the establishment of its public power as a collector of duties and taxes.

In this article, the author highlights the evolution of economic thought through which it has been possible to efficiently integrate public finances from taxes and duties within the framework of economic classicism.

The purpose of the research resides in the evolutionary study of the fiscal relations through the prism of the economic thought.

Key words: tax administration, fiscal policy.
J.E.L. classification: E62, H3.

1. Introduction

The functioning and development of a state is based on its ability to ensure economic and financial stability, defense capacity, development of social sphere and raising the living standard of the population.

The performance of these functions is impossible without creating a stable tax base and ensuring a good tax administration.

Under these conditions, the state aims to carry out two important activities in order to be functional: to create an efficient financial mechanism and to approve a rational fiscal policy.

At macroeconomic level, fiscal policy is part of the state's general economic policy, permanently acting on the process of collecting public financial funds, so that, on the one hand, necessary revenues are obtained to cover the needs of the state and, on the other hand, certain strategic objectives for the economic and social development of the country are achieved through sectoral financing.

Since the fiscal approach has changed depending on the state's economic policy, the author aimed to elucidate the most important trends that have been attested over time in relation to the evolution of economic thought.

2. Theoretical background. Actuality of the proposed topic for investigation

By the essence of the scientific doctrines described over time, the state is assigned the role of legislator and supreme coordinator in the political, economic, financial and social field.

For a state to be functional, it needs to be able to finance its projects of social, economic, political nature and, last but not least, those of defense of the integrity and sovereignty of that state.

To fulfill its obligations as a state, it became necessary to create a mechanism to ensure tax collection.

Thus, starting from the analysis of the causes and natural conditions of the economic mechanism, followers of economic doctrines have emphasized through taxation the usefulness of the process of formation, distribution and redistribution of public financial resources.

All these considerations determined the author to make an incursion in the financial and fiscal field, from the point of view of the doctrinal approaches.

Arguments that are required for examining this topic are:

- evolutionary analysis of economic thought in relation to the field of public finances;
- studying the origin of the concept of taxation;
- elucidating the role of the state in the efficient management of public finances;
- formulating the contemporary principles of taxation;
- analysis of the gaps presenting major problems for an effective fiscal policy.

The theoretical and methodological support of the investigated topic was provided by the works of the scientists, who carried out research in this field.

3. Research methodology

When elaborating this article, the author used 3 research methods, namely:

Fundamental research allowed the evolutionary elucidation of fiscal relations in different periods, reflecting the trends of change attested in the researched field.

Research for development aimed at using those processes and devices that can directly influence the practical activity in the field of tax administration.

Applicative research had as objective to provide data for directing the practical activity in order to increase the methodical activity. As a result of applicative research, conclusions were formulated about the role of taxation in ensuring the financial security of the state.

4. Results and discussions

The evolution of fiscal relations has its beginnings in ancient times. These were formed and determined in the form of collections of different types. Their payment could have a religious character, such as offerings and gifts, master-subordinate relation, as well as in the form of tribute, contribution etc.

The stage of knowledge and understanding of the fiscal process has its origin in the first works of the physiocrats, and economic liberalism is attested as the current of thought that marked the history of economic theory and practice.

Developed during the period between the years 1750-1780, the liberal current has been noted by approaching economic life in terms of production, natural wealth, and not least the existence of social institutions.

The economic literature from the classicism period underlines the idea that all sources of income are taxed, and the taxpayers are without exception the citizens of the state.

The establishment of scientific concepts about taxes as an object of administrative decisions is reflected practically in all fiscal theories. The evolutionary development took place simultaneously with the development of different directions of economic rationale, which reflects the changes in the production relations and the level of state participation in the reproduction process (Ricardo, 1193, vol.1).

In fiscal culture, the concept of "taxation" has been assigned multiple valences of linguistic, psychological, economic, legal or political nature.

This aspect is emphasized throughout the development of economic theories, documented in the reference works of the great thinkers, such as: T. Hobbes and F. Locke, A. Smith, G. Akerlof and others.

T. Hobbes and F. Locke are those who place the intrinsic principles of human nature at the basis of the state power. In this framework, the thinkers studied social phenomena and stated two principles regarding the physical and spiritual actions of the human being, respectively: the principle of usefulness and the principle of association of ideas.

A. Smith is the one who, in a philosophical approach, in the work „Theory of Moral Sentiments", has associated morality with the economic component. The author states that „*the natural order*" is achieved „*through the free play of human passions, assuming that public authority does not pose obstacles*" (Smith, 2017, p.62).

Continuing the logic of statement of the classic of Scottish origin, primary sources of income formation are: wage, profit and rent. In this context, the methods of purchasing resources necessary for the functioning of the state apparatus were designed on the basis of the principle of fiscal neutrality. This principle, in Adam Smith's thought, represented „*the tax indifference to the economic structures of the means of production*" (Popescu, 2004, p.135-136). At the same time, the collection of taxes should not affect the mechanism of price formation, economic-social relations or the balance between state revenues and expenditures, considered the main requirements of the management of the public finance system.

With the publication of the work „The Wealth of Nations", Adam Smith outlines the inseparable connection between the legislator and the individual. Its content gives the idea of establishing measures aimed at ensuring the income of citizens, and the society the possibility of purchasing the resources necessary for the maintenance and functioning of public services (Smith, 2014).

Nobel laureate (2001) George Akerlof in „Economics and Identity", incorporates the psychological and sociological components of identity into an economic model. The reasoning of the model are two of the factors that influence the economic results (Akerlof, 2000, p.715-753).

In his work „Evolution of Economic Thought" (Popescu, 2004, p.135-136), Gheorghe Popescu analyzed the four principles of taxation, described by Adam Smith in „*Of the Revenue of the Sovereign or Commonwealth*". Author's attention is focused on the state's revenues, expenditures and public debt. Thus, within the scope of the approach of this subject, Adam Smith mentions that the establishment and levying of taxes must be carried out under the conditions of:

1. ***Equality***, consequently, the tax is levied proportionally to the payment capacity of individuals;
2. ***Certainty***, levying under the conditions of the law and not arbitrarily;
3. ***Convenience***, assumes that the payment method and periods are convenient for the citizens;
4. ***Economy***, in other words, the levies must be reduced to the minimum compatible with the needs of the state.

The scientific approach outlined by Adam Smith and his predecessors gives taxation a very large room for maneuver and gives the specialists in the field the opportunity to define this concept.

John Mathieu in 1999 in his work „La politique fiscale" notes that taxation is an effective tool in the service of a state, which embodies a certain vision of life in common, organized by components of power specialized in management of public services, for the proper functioning of which it is necessary to collect financial resources.

Coordinated by the idea that economic initiatives are based on individual initiatives, Adolph Wagner builds a system of income redistribution by using some tax-specific tools. Practically, in his opinion, the role of state in economic activity is that of a "*distribution regulator, and through the legal organization of the circulation, it guarantees and ensures its means of direct participation in the production of goods*" (Wagner, 1892, vol.1).

After extensive analysis, the German economist manages to prove that the relationship between the state and the economic field is a dynamic and relative one. This framework offers the possibility to formulate a "law" of the increasing extension of state's activities, materialized in the real increase of public expenditures, which is based on the growth of the gross product and its redistribution to the public authorities.

Studies developed during the classicism are supplemented by the neoclassical synthesis of the fiscal theory. New theories introduce new concepts, such as economic equilibrium or factors of automatic stabilization.

Regarding the general equilibrium, Leon Walras mentioned that this can be achieved under the conditions given by the existence of perfect competition (Blaug, 1986, p.262). According to the model developed by the French researcher, this condition is based on the economy that uses the landed, personal and movable capital, these being placed under the conditions of a market for final goods and productive services.

Using mathematical reasoning, Walras notes that when supply is equal to demand, a general equilibrium state is reached in both markets and for each good or service.

Adjacent to Walras' acceptance, the theory of general economic equilibrium is developed by Vilfredo Pareto. He studies the real conditions of achieving equilibrium, appealing to the applied economy.

The economic thought of V. Pareto is guided by the interest of knowing the uniformity of economic phenomena. One of the most important contributions to the development of economic science is the formulation of two criteria for the optimal allocation of resources. These criteria are: relative criterion and absolute criterion. Both are based on the distribution of goods between individuals, so that any new modification of the allocation will lead to optimal collective welfare (Pareto, 1897, vol.1).

The fiscal and budgetary value emerging from the formulation of these criteria is that an excessive fiscal burden leads to a decrease in the collective well-being, because the negative impact of the fiscal constraint cannot be fully compensated by another positive impact due to the services provided by public authorities.

Continuing the logic of statement, our study continues with knowledge of the neoclassical equilibrium theories, introducing the Keynesian model. The research conducted by John Maynard Keynes was determined by the economic recession of 1929-1933, a situation that forced the reformation of the economic thought of that period. In this context, Keynes' theories demonstrate the importance and role of state intervention in the economy.

According to Keynes, the state's interventionist policy can significantly reduce the economic distortions. At the same time, the researcher states that registering an equilibrium between demand and supply and applying a combination of fiscal and budgetary policies, such as a relaxing fiscal policy correlated with an expansive budgetary policy, contribute to ensuring the relaunch of economic growth.

Also, according to Keynes, „*the use of a discretionary fiscal policy will directly affect current income when the market is facing price rigidity, excess capacity and existence of liquidity constraints of economic entities, but also of households*"(Keynes, 2012, p.142).

In building his theories and models, Keynes uses the instruments of fiscal and budgetary policy. Taxes, public expenditures or budget deficits are considered by Keynes as the main factors with direct influence on savings, investments and unemployment.

To demonstrate how the state can influence the state of equilibrium or disequilibrium in the economy, Keynes introduces fiscal instruments in his demonstrations. As in the case of multiplying supply by means of public expenditures, by handling taxes, duties, etc., a process of revenue multiplication can occur.

The conclusions of the Keynes' analysis indicate that the stimulating effects of public expenditures are greater in the case of their financing through loans or monetary measures than the increase of taxation.

The concept regarding the interventionist role of the state, formulated by the economist J.M. Keynes, has found followers around the world. Taxes, duties, public expenditures have been used as instruments to promote economic growth. New mechanisms of market economy functioning have been created in which fiscal instruments play a quite important role.

Keynes' studies were deepened by the American professor Paul Anthony Samuelson, a Nobel Laureate in Economics in 1970.

In his researches P.A. Samuelson emphasizes the role of the public budget in ensuring the stability of the economic and social activities of the modern period.

Samuelson states that "*taxes provide the state with the resources needed to purchase public goods. Taxes also serve, to an equal extent, to finance the transfer expenditures, i.e. the expenditures for social assistance, which change the distribution of national income*." (Oprea, 2013, p. 483). As a result, the way in which the tax liabilities are established influences the final distribution of individuals' income.

According to Samuelson's opinion, fiscal and budgetary policy measures can bring significant changes to the level of equilibrium. Thus, the application of an inadequate fiscal and budgetary policy can lead to the impossibility of the evolution of the business cycle. Otherwise, a policy adapted to the current economic situations contributes to mitigating the registered disequilibrium and restoring the stability climate.

In the context of his research, the system of automatic fiscal stabilizers has a special relevance. Samuelson considers that the action of the automatic stabilizers „*contributes to the budgetary consolidation, but does not represent the solution of the absolute settlement of the disequilibrium"* (Oprea, 2013, p. 485).

Depending on the phases of the business cycle, the level of taxes and public expenditures can lead to the following situations, described in *Table 1*.

Table no. 1. Phases of business cycle

№	Phases of business cycle	Characteristics
1.	Obtaining a budget surplus	This situation can be registered in the growth phase of the business cycle
2.	Obtaining a budget deficit	This situation can be registered in the recession phase of the business cycle
3.	Increasing the volume of cash of citizens	It is recorded during periods of economic well-being
4.	Decreasing the volume of cash of citizens	It is recorded during periods of economic decline
5.	Political interference	Influence of fiscal-budgetary policy, based on the context of political decisions.

Source: Adapted by the author after (Oprea, 2013, p. 485)

From the perspective of other authors, taxation represents a set of rules and methods of establishing public funds, of redistributing national income, in order to ensure the goods and services of life.

As a generalization of the above mentioned, if we analyze the content of the definitions noted in the specialized literature, we can state that for decades the vision on taxation has been permanently related to taxes.

Undoubtedly, the principles of taxation originally formulated by Adam Smith recorded a progressive character. At the moment, we can affirm, with certainty, that the tax system is guided by 13 general principles, presented in ***Annex 1***.

By setting up fiscal policy in accordance with the principles described above, the state aims not only at establishing its revenues or financing public expenditures, but also at „*harmonizing the interests and behaviors of the taxpayers with those of the authorities*", notifies L. Batrîncea in her work "Fiscal Behavior – Theoretical Approaches and International Comparative Studies" (Bătrîncea, 2016, pag.54).

We can state that the economic theory of taxation is not limited only to the analysis of the effects of tax on taxpayer behavior. It also has a normative dimension, whose roots are found also in the history of political economy.

In our opinion, the optimal taxation theory should be aimed at choosing those taxation rules and methods for distributing the burden between taxpayers, which meet one or more predefined criteria.

As a result of the research, we identified two criteria that dominate the literature on optimal tax: the efficiency of the allocation and the inter-individual equity. These criteria always lead to conflicting tax options. For this reason, the choice of optimal taxation is inevitably confronted with an "equity-efficiency dilemma", but other characteristics can be assigned to an ideal tax system.

According to the group of authors: Jessua C., Labrousse C., Vitry D., Gaumont D., „*simplicity, flexibility, transparency, financial efficiency or horizontal equity are the additional criteria that the economic theory of optimal tax generally ignores, but which are not irrelevant*" (Jessua, Labrousse, Vitry, Gaumont, 2006, p.391).

If we look only from the point of view of economic efficiency, the ideal taxation is the one that does not distort the system of relative prices between goods and factors, between the current prices of goods and factors and their future prices.

The recommendations of the economic theory regarding the taxation of the individuals' income vary considerably depending, on the one hand, on the objective pursued (vertical equity, horizontal equity, combination between vertical equity and economic efficiency), and, on the other hand, on the parameters related to the individuals' behavior (especially the value of the elasticity of

substitution between free time and consumption, the distribution of capacities between individuals) (Jessua, Labrousse, Vitry, Gaumont, 2006, p.391).

The recent literature on optimal tax has developed in two additional directions. The ***first direction*** concerns the advisable degree of decentralization in tax matters, that is, the problem of determining the most appropriate way of distributing taxes between different levels of public institutions. The ***second direction*** of development of the literature on optimal tax is focused on the study of the ideal trajectory of fiscal reform. The results show that fiscal gradualism, which seems to be about common sense and which, moreover, is often elevated to the principle of action by governments, is not always possible or desirable if the economy suffers from prior fiscal distortions.

The theory and practice of fiscal policy demonstrate that for a fiscal policy to be effective and reduce economic instability, it must stimulate the economy during the recession and restrict it during the expansion of inflation. But because of the gap issues, it is highly unlikely that fiscal policy will ever be effective.

According to the university professor Tatiana Manole, the three gaps, which present the major problems for an effective fiscal policy, are: (Manole, 2016, p.659):

1. ***Recognition gap*** – the time needed to recognize that there is a problem in the country's economic and financial situation and needs to be solved.
2. ***Administrative / legislative gap*** – the time needed to implement a policy to correct economy's course.
3. ***Impact gap*** – the time needed to change the fiscal policy to affect the economy.

5. Conclusions

The contemporary tax system must be equitable, efficient and understandable. Any fiscal measures should be oriented towards maximizing revenue collection and efficient spending of public money. But this aspiration must be established on the basis of respecting the rights and obligations of the parties, that is, the taxpayers and the state authorities.

Many good things have been done in the field of taxation in the Republic of Moldova, which deserve to be recognized as such and maintained in the future. However, we cannot fail to note that there are still many ambiguities within the tax legislation, the tax system, but also at the level of the political decision makers in promoting a fiscal policy and an organizational framework that would lead to a greater and more predictable stability of the breakdowns to the National Public Budget to which taxpayers are subject.

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Appendix 1

Contemporary principles of taxation

№	Contemporary principles of taxation	Characteristics
1.	Principle of equity	The application of this principle implies that the taxpayers pay taxes proportionally to the amount of the obtained income.
2.	Principle of certainty	The tax that any person is obliged to pay must be well specified. The time, method and amount of payment must be clear and obvious, both for the taxpayer and for any other person.
3.	Principle of convenience of levy	Principle of convenience of levy, includes the aspect according to which, taxes must be levied in a manner convenient to the taxpayers and on the terms favorable to them.
4.	Principle of tax efficiency	Any tax must be designed in such a way as to withdraw and alienate from the population's pockets as little as possible, and the collection of taxes should be made with a minimum of expenses from the state.
5.	Principle of tax stability	The level of tax efficiency should be kept constant throughout the business cycle.
6.	Principle of uniqueness	Any income must be subject to a certain tax only once within a certain period of time.
7.	Principle of elasticity (tax flexibility)	This principle implies the possibility of permanent adaptation of taxes to the needs of the state's revenue policy.
8.	Principle of proportionality of taxation	Compliance with this principle is a form of manifesting the equality of income with respect to taxes, because it implies ensuring a balance between the income subject to taxation and its amount.
9.	Progressivity of taxation	Contrary to the principle of fiscal equity, the progressivity of taxes implies the increase of the level of tax rates as the income increases, i.e. the object of taxation.
10.	Principle of simplicity of taxation	It consists of applying simple techniques for determining the tax and an easy way of collecting it.
11.	Principle of neutrality of taxation	It involves applying uniform treatment to all taxpayers for similar operations.
12.	Principle of reality of taxation	According to this principle, the exact calculation formulas, specific to each type of income and category of tax will be used in determining the tax base and establishing the tax.
13.	Principle of morality of taxation	This principle requires compliance with fiscal equity that implies: applying the tax according to the nature and size of the taxable object; establishing the tax burden according to the personal situation of the taxpayer; legislating tax by establishing a non-taxable minimum.

Source: Adapted by author after Solomon (Solomon, 2015, pp. 29-31)

Preparation of Negotiation Activities in the Tourism Business

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Abstract

Neglecting the negotiation process and especially the poor training of the negotiator often leads to decreased organizational performance, and thus to the failure of certain revenues. For these reasons, the proper preparation of the negotiation process for the development of tourism business, is a vital one for tourism enterprises, which tend to become competitive on the national and international tourism market.

The aim of the research is to develop the theoretical, methodological and applied foundations of business negotiation management in tourism.

Key words: negotiation, negotiator, tourism
J.E.L. classification: M1, Z32

1. Introduction

The periodic changes that take place in the tourism business environment, determine its management to be constantly concerned with the implementation of certain strategies, which improve the quality of negotiations, in the context in which they are vital for the activity of any tourism enterprise.

It is enough to recognize that the advantages of competition and free competition in tourism, make the tourism product of the tourism enterprise competitive, only if we have a well-thought-out strategy when participating in negotiations.

Negotiation specialists investigated the effects of neglecting to adopt a negotiation strategy and found that the poor training and unprofessionalism of the negotiator, leads to a huge risk that the tourism company may face in terms of achieving performance in the tourism market. For these reasons, the tourism business should not save resources for the proper training of negotiators, as in the medium and long term this investment will be recovered with added value for that business.

2. Theoretical background

Practice has shown that a simple approach to the process of organizing negotiations in the tourism business is not enough. The goals set do not simply have to be stated, but require changes in the behavior of those involved in the negotiation process, so that they are prepared to achieve organizational performance.

From these perspectives, this article is made in a comprehensive and well-structured study of the development of business negotiation related to the tourism business, and a widely used bibliographic study allowed us to provide a multidimensional image of the researched field.

We consider that this article is a complex scientific work, which will add value to the respective topic, in terms of how to organize and conduct negotiations, by offering practical solutions.

Approaching such an important topic as business negotiation management, the authors dedicate this scientific study to the tourism business environment, which in our opinion, would improve the quality of negotiations, and participants in the negotiations will only gain, following the recommendations.

As arguments that are required for the research of this topic are:

- analysis of the theoretical-conceptual approach of the main elements and categories that characterize the management of negotiations;
- concretization of the place, content and specificity of the management of negotiations within the tourist enterprises;
- generalization of the main trends that are attested in the management of business negotiations;
- identifying the main obstacles related to the organization and conduct of business negotiations;
- determining the need to resize business negotiation activities within the tourism enterprise, in order to increase both organizational performance and professionalism of employees involved in organizing and conducting negotiations;
- formulating recommendations on improving the organization and conduct of business negotiations related to the tourism business in the Republic of Moldova.

Informational support of research

As bibliographic support for the research of the topic in question served: scientific publications on the investigated topic, analytical and institutional materials, materials of scientific articles, materials of national and international scientific conferences, monographs and periodicals.

The applicative value of the researched topic

The theoretical findings and conclusions formulated on the basis of that investigation will be a consistent basis for the development of a complex study in the field of business negotiation management in tourism.

3. Research methodology

For researching the topic of business negotiation management in tourism, traditional methods of analysis were used, such as: *structural-functional method, comparative method, behaviourist method, institutional method and observation.* Our scientific approach has also been strengthened through the use of qualitative content analysis, the aim of which is to analyse written text or transcribed speech. In this order of ideas, the rhetoric was channelled towards the use of qualitative content analysis, oriented towards the description of the researched phenomenon. *The structural-functional method* ensured an overall research of business negotiations, related to the specifics of the tourism business, highlighting the defining elements and principles of operation of the tourism market, examining the functions of different models as part of an integrated system. *The comparative method* allowed to subject to analysis the subject approached by the general-particular relationship, aiming to determine the common features and elucidate the specific ones, to identify the repeatability and to specify the novelty in the evolution of negotiations at national and international level. *The behaviourist method* offered the possibility to study the behavior of the negotiators, who were influenced by various external factors. *The institutional method* was used to elucidate the way of establishing personal relationships in the process of organizing and conducting negotiations, while respecting the content of the deontology that accompanied this phenomenon. *The observation* was used to analyse the behaviour of negotiators, including in times of crisis, necessary information from gnoseological and theoretical-methodological reasoning.

4. Results and discussions

Representatives of the tourism business environment are aware that any negotiation must be well prepared. When we set off, we prepare the right luggage and know exactly where we are going and where we want to go.

By engaging in a complex activity, the negotiator cannot leave the development of things to the momentary inspiration. Negotiation preparation is important and a prerequisite for increasing the negotiator's performance for success.

Acting as a professional negotiator, he will find that when he is well prepared for the meeting with his partner, he will act in a coherent way, with a lot of self-confidence, he will be much more demanding in formulating and promoting his own requests. In the confrontation between a prepared and an unprepared negotiator, the former will always have an advantage over the latter.

The lack of preparation will be revealed sooner or later during the actual negotiations. The performance of the untrained negotiator will eventually prove unprofessional, with movements (proposals, objections, concessions, etc.) executed at random. The negotiator's position will weaken, as his weakness will certainly be noticed by the partner.

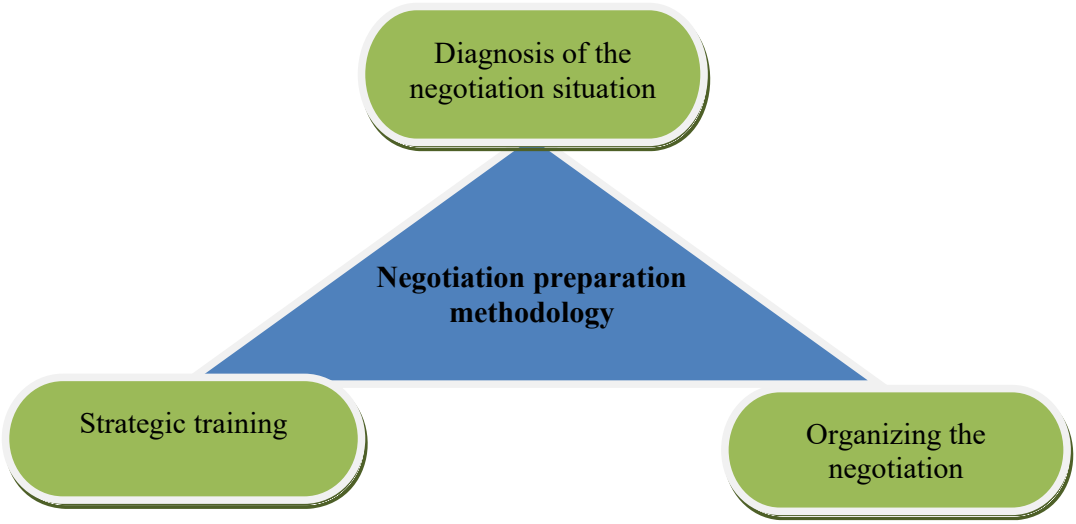
The solution is also not good when the negotiator prepares a unique solution that he intends to put into practice. This can lead to rigidity in negotiations. Focusing on a single solution makes the negotiator restrictive and limits his creativity. Obviously, he may lose sight of certain opportunities that may arise along the way and that are favourable to him, because he is in a position to argue only the solution he has in mind and to reject any other option.

Analysing the above, in our opinion, the preparation of the negotiation must be flexible. This involves a prodigious activity in order to establish a realistic plan, which should be a guide for the meeting with the business partner. At the same time, the negotiator must be aware that what he is doing in the preparation phase is an arrangement based on certain assumptions and assumptions. It follows, at the actual start of the negotiation, to verify these hypotheses, to complete them or to modify them. In this way, his performance will have a useful direction to order his movements, but at the same time he will leave room for adaptation to the context. Consequently, it will be possible to develop creative solutions, which were not visible from the very beginning, in order to respond pertinently to the evolution of the negotiation.

In the opinion of Mr. Vasile Dragoș, the preparation of the negotiation must include the diagnosis of the negotiation situation, the establishment of the objectives and the adoption of some decisions of strategic and tactical nature through which they can be made (Dragoș, 2011, p.114).

A methodology for preparing for the negotiation includes the following steps, shown in ***Figure 1.***

Figure no.1 Negotiation preparation methodology



Source: Elaborated by authors in base of Vasile Dragoș (Dragoș, 2011, p.114)

I. The diagnosis of the negotiation situation is an activity that is based on a work of collecting data and relevant information on the negotiation situation, their interpretation and analysis, subsequently becoming a fundamental basis for subsequent decisions.

Before specifying what it is desired to be achieved, the negotiator must understand as well as possible: **"Where do we start?".** To answer this question the negotiator needs as much information as possible. Based on it, he will be able to understand the configuration of the

fundamental elements that outline the structure of the negotiation (object, context) and the relationship between the parties (interests, power).

The sources of relevant information are both primary and secondary. ***Table 1*** shows the internal and external sources from which the information can be taken.

Table no.1 Informational sources

Internal secondary sources	External secondary sources
1. Existing databases in the tourism enterprise	1. International tourism exhibitions
2. Analysis performed by managers	2. Comments from consumers-tourists served
3. Advertising materials of the potential partner existing in the enterprise	3. Specialized professional organizations in the country where the potential partner operates
4. Existing records in the tourism enterprise that are relevant for the respective negotiation	4. The tourist business environment with which the potential partner works
5. Data collected through a special research carried out for the respective negotiation	5. Reports from the trade mission in that country
6. Information provided by the partner	6. Discussions with third parties who know the future partner

Source: Elaborated by authors

In addition to knowing the tourism business with which you want to develop a partnership, you need to know aspects of the tourism business environment of the partner country, including relevant legal and commercial regulations, the structure and trends of the market evolution.

A useful method by which the negotiator can gain a better knowledge of the future partner is to travel to his headquarters. Whatever he sees: what the headquarters and the interior of the offices look like, how the staff behaves, etc., discussions with the potential partner can provide valuable information.

II. The strategic preparation of the negotiation puts the negotiator in front of crucial decisions. A first set of questions concerns the objectives to be achieved and the strategic approach of the meeting. Therefore, the relevant questions are: ***"what do we want to achieve"*** and ***"how do we negotiate".*** The answers to these questions aim to provide benchmarks for reducing uncertainty in the later stages of the direct meeting between the partners. They are formulated on the basis of the information collected, but they also presuppose the anticipation of the future development of the negotiations or the constitution of some hypotheses, based on the thinking and experience of the negotiator.

A methodology of strategic training, in the opinion of David Patrick, includes the following steps, presented in ***Figure 2.***

Figure no.2 Strategic training methodology



Source: Elaborated by authors in base of David Patrick (Patrick,2007, p.190)

a) Preparation of negotiation objectives. Objectives can be defined as achieving the goals or expected results set by the negotiator in order to achieve his interests. In a negotiation we can talk about *a global objective and specific goals.*

- *The global objective*, as a rule, provides for the conclusion of a profitable and fair business, the creative resolution of the conflict, the agreement of a level playing field for the realization of the project related to the tourism business.
- *The specific goals* aim at more detailed issues, ie to be open and cooperative in negotiations.

The objectives set by the tourism undertaking must meet certain requirements: be precise and measurable, not be vague or abstract, be realistic and flexible. These requirements are often summarized by the ***SMART*** phrase (Doran, 1981, p. 35-36):

- ***Specific*** – the objectives must be precise and not vague;
- ***Measurable*** - the objectives must correspond to this desideratum as much as possible;
- ***Adequate*** - the objectives must correctly approximate the interest of the negotiator and be related to the issue in question;
- ***Realistic*** - the objectives must always be based on a prudent and relevant analysis;
- ***Temporal*** - the objectives must aim at a precise time horizon.

Objectives that are too rigid can impede the negotiator's performance. As an example, it can serve the situation when the negotiator prepares a single solution which, in his view, is reasonable and advantageous for both parties, but which is not accepted. The error of approaching the single solution is that the latter does not result in the contribution of both parties.

Based on these arguments, we consider that the preparation of the negotiations must be flexible, which means setting a set of objectives, to be expected, according to the specification presented in ***Table 2.***

Table no.2 Expected target levels

Nr	**Expected objectives**	**Deciphering the objectives**
1.	The maximum objective	It can be materialized by the best result that the negotiator can expect.
2.	The minimum objective	When starting the negotiations, it is important to establish the lower target beyond which the negotiation is no longer of interest.
3.	The target	As a result of the negotiations, the parties reached a common denominator, achieving a realistic result, able to satisfy the interests of both sides.

Source: Elaborated by authors in base of Roger Launay (Launay, 1990, p.133)

b) Preparation of negotiating positions. In the negotiation, the parties do not have the discussions starting from interests or objectives, but from negotiating positions. The preparation of the position comes in completing and deepening the objectives, involving the realization of a projection on the requests and claims that the negotiator will formulate. At the same time, it must provide for the negotiating positions of the partner.

In our opinion, *the negotiating position* represents the affirmation of a tourist offer or demand, pretensions, preferences or point of view regarding a certain element of the negotiation, which refers to the way of organizing and starting the business on the tourist services market.

To be more explicit in the reports, the negotiating positions can be presented according to ***Table 3.***

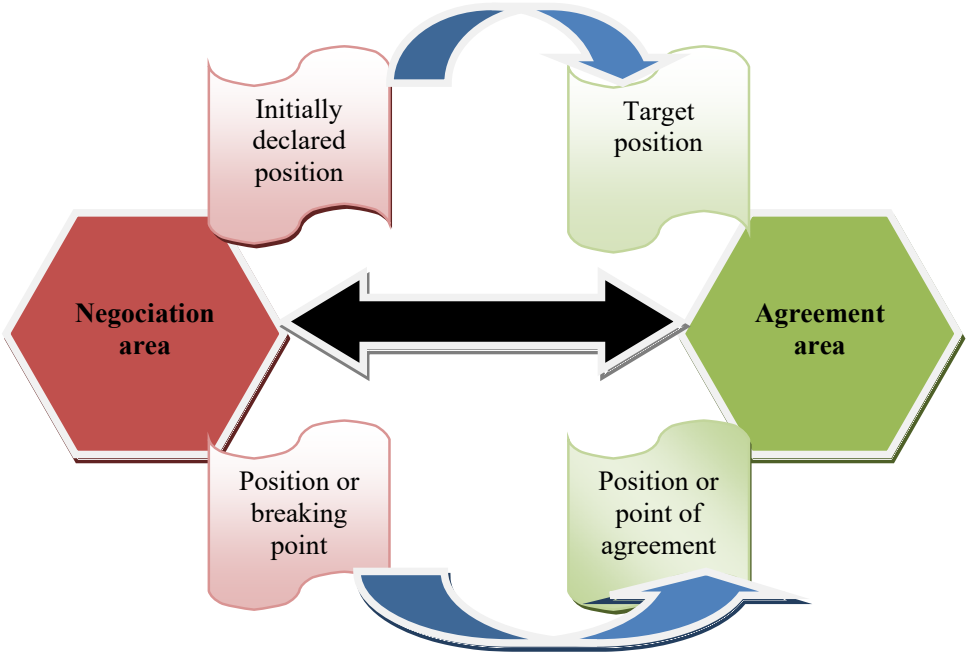
Table no. 3 Negotiation positions

Nr	***Typology of negotiating positions***	***Characteristic of negotiating positions***
1.	Initially declared position	Represents the level of the first offer or request made by the negotiator for a certain section of the negotiation.
2.	Position or breaking point	Represents the limit to which the negotiator agrees to make concessions and which he does not want to exceed.
3.	Target position	Represents the level of aspiration of the negotiator, considered realistic and likely to satisfy their own interests, but also not to harm the interests of the business partner.
4.	Position or point of agreement	The position at which the representatives of the tourism business reached a common denominator and concludes the agreement for the object of negotiation discussed.

Source: Elaborated by authors

The combination of the negotiating positions of the parties leads to the shaping of some negotiation areas, reflected in ***Figure 3.***

Figure no.3 Combining the negotiation positions



Source: Elaborated by authors

Combining negotiating positions is an important task, given their impact on the overall process configuration (Benoliel, 2011).

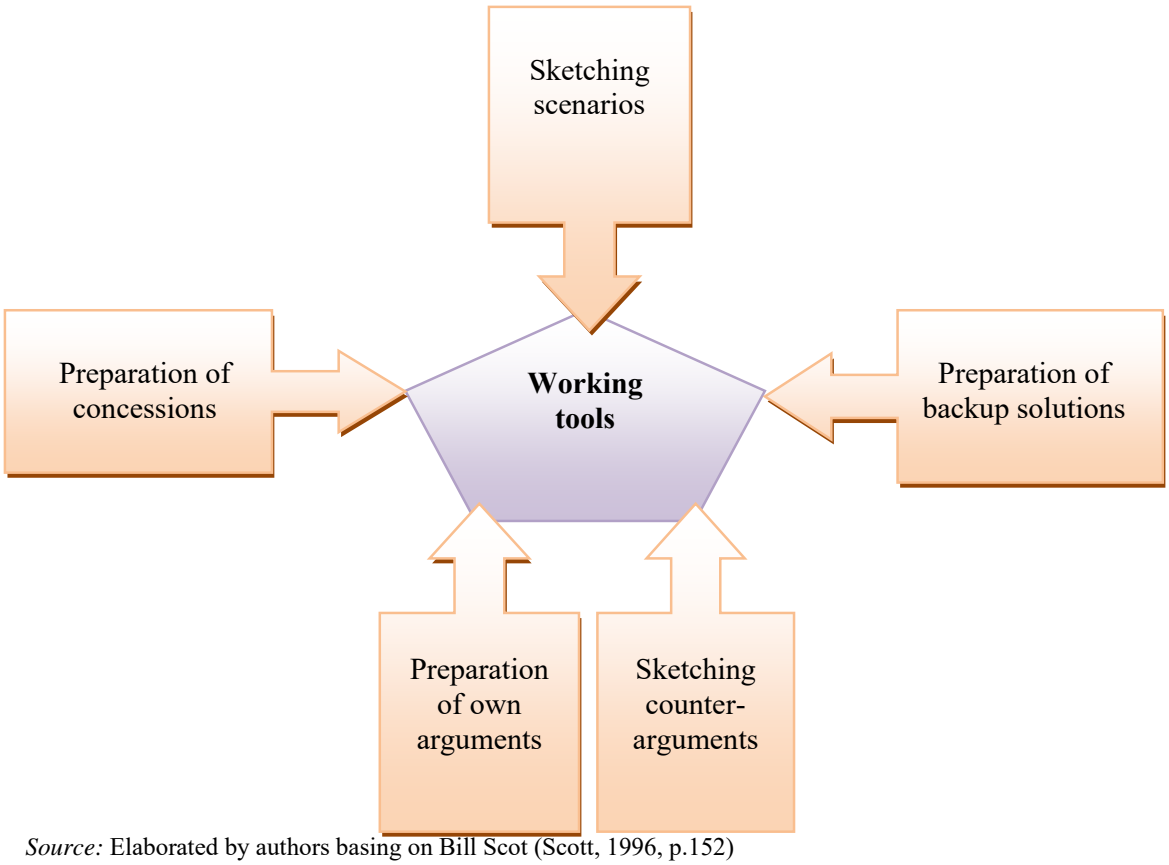
c) Strategy preparation. An important part of the training is to establish the right negotiation methods, i.e. we must provide an answer to the key question: ***"How do we negotiate?".*** Thus, the ways and methods by which the objectives can be achieved must be identified, thus defining the strategic dimension of the negotiation.

The negotiation strategy represents an overview of the tourism enterprise, which determines the approach and behaviour of the negotiator throughout the negotiations, in order to achieve the established objectives. In these circumstances, all the decisions that must be taken to meet the objectives pursued, will be taken by considering both internal and internal factors, related to the specifics of the company (Patriche, 2007, p.543).

From a practical point of view, strategic preparation involves taking decisions on possible manoeuvres performed by the potential partner throughout the negotiation. These decisions concern various major aspects of negotiation, such as: the complex approach to behaviour towards the future partner, the treatment of the object of the negotiation, the use of time, the use of power or the use of certain tactics.

In addition to the general guidelines, strategic training should also include the design of concrete working tools, shown in ***Figure 4.***

Figure no. 4 Strategic working tools



Source: Elaborated by authors basing on Bill Scot (Scott, 1996, p.152)

III. Organizing the negotiation. It is important that in the negotiation process we start from the premise that in business you do not get what you deserve, but only what you negotiate. (Burduș, Căprărescu, Androniceanu, Miles, 2003, p. 442). In this context, the proper organization of negotiating meetings is a condition for an accurate and operational communication. It can allow for a climate of dialogue and understanding between the parties from the outset. In this regard, the partner organizing the negotiations, ie the host, must take into account, from the preparation phase, the following aspects (Popa, 2006, p.211-212):

- establishing the participants;
- establishing the agenda and the way of working;
- creating favourable conditions for negotiation;
- logistical support of negotiations.

An essential condition for starting negotiations is to maintain the openness of the communication, to ensure a working climate and cooperation between the parties. But to meet this condition it is necessary to properly prepare the team by solving certain key problems.

The key issues to be resolved for the preparation of the negotiating team are presented in ***Table 4.***

Table no. 4 Key issues related to business negotiation

N/o	Key issues	Characteristics
1.	Team size	It is influenced by the complexity and stakes of negotiation. The number of participants must be kept to a minimum, so as not to distort the message.
2.	Team structure	It is related to its size and results from the application of at least two criteria: the content of the business and the functionality of the business. The more complex tourist negotiations may claim the need to join people with deeper knowledge in the financial, commercial, economic or legal field. In fact, the functional roles of the members differ, each having concrete tasks (example: some play the role of negotiators and others have document preparation tasks).
3.	Communication way	It is an organizational aspect, which provides for the establishment of communication channels both within the team and between the teams of negotiators.
4.	Negotiating mandate	It is an official document, issued and signed by the management of the tourist enterprise, which contains instructions for the negotiator.
5.	Preparation of the negotiating venue	For the actual meeting, optimal conditions must be ensured regarding the place of the negotiations, fixing the moment and duration of the negotiation, arranging the space for the negotiations, ensuring the facilities for the guest team.

Source: Elaborated by authors basing on Guhan Subramanian (Subramanian, 2011, p.256)

Properly conducted negotiations involve a dialogue that, beyond the way of completion, must be characterized by mutual respect (Gavrilă, 2002, p. 260).

5. Conclusions

Negotiation is a cognitive phenomenon, it can only be carried out seriously and efficiently on the basis of a thorough training, which necessarily involves extensive documentation and information on developments in the tourism business, the study of the domestic and foreign tourism market, potential partners, defining as precisely and clearly as possible the own objectives and, as far as possible, identifying the objectives of the partners.

Developing the respective theme, we can say that the process of preparing the negotiations is a very important aspect in the conduct of negotiations, because the essential condition for the success of trade negotiations related to the tourism business is to obtain advantages, able to favour the tourism company with the competitive environment, respectively by creating premises that would strengthen its positions.

For these reasons, in order to engage in an important negotiation, the tourism company must take a series of actions in order to ensure a relevant logistics to the negotiation process.

At the same time, it is important to specify that the negotiator involved in the negotiations must have the appropriate training. His lack of training or experience will have a negative impact on the final results of the negotiations.

Before specifying what he wants to achieve, the negotiator must understand as well as possible the situation that exists on the tourism market, which requires a very good documentation.

The balance must also respect the interests of the parties involved in the negotiations. This will allow: the delimitation of areas of agreement and disagreement, compliance with ethics in the behavioural approach of negotiators, reaching the bargaining stake.

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Benefits and Challenges of Internet - Based Virtual Presentations

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Abstract

Educational platforms offer learning opportunities, training and programs using electronic means. This paper focuses on the way e-learning platforms make their way into the education system because they implement new technologies and allow more efficient use of material and human resources. The aim of the paper is to present virtual reality and augmented reality as a form of teaching because they are tools that provide a faster learning experience. The paper will also discuss the factors that limit the development of VR and AR although it is considered that the use of virtual reality adds value to traditional methods of presentation and learning. Participants are placed in specific learning situations, the ultimate goal being to improve learning, training and education methods, but also to encourage and develop creativity and interconnect study disciplines to strengthen students' involvement in education.

Key words: E-learning, multidisciplinarity, augumented reality, synchronous learning, asynchronous learning
J.E.L. classification: I29

1. Introduction

The introduction of the computer into the teaching process and computer-assisted learning foreshadow only qualitative changes in the teaching technology, an area that ensures the shortening of the time of objective evaluation of the qualities of the educational means and methods. Human existence itself is conditioned by learning and the newest trend in education, known and appreciated as the most effective and desirable so far, is e-learning. Known as e-learning or, more recently, as e-education, the concept of e-learning (or virtual) is represented by the interaction between the teaching-learning process and information technologies. Nowadays, the choice of the ideal teaching methodology is one that teachers have to think about, especially if they choose to use an applied methodology, flexible enough to be adapted to different learning contexts. A virtual learning environment (VLE) is a computer-simulated space where people can meet and interact to work together. This type of system is based on a virtual environment (digital classroom) that provides users (students and teachers) with a series of tools that serve the teaching-learning acts; moreover, through the use of computers and the internet, these tools have the role of adding value to the learning process of students.

2. Theoretical background

A programme of distance education studies may be offered entirely remotely or may be a combination of distance and face-to-face educational activities carried out in the schools. Remotely organised courses can use a wide range of training and communication methods, technologies and resources, such as video, audio conferencing or internet-mediated web techniques. Connecting to the Internet greatly increases the possibilities of cooperation between people located geographically apart. "Cooperative Learning is a structured and systematic training strategy in which small groups work together to achieve a common goal". (Oprea, Crenguţa-Lăcrămioara, 2003). Online learning platforms are complex systems that offer educational institutions the chance to create and transmit

practical and easy-to-follow multimedia content. Thus, students can learn more easily, using more practical examples and enjoy a pleasant and interactive learning environment. Online learning can be done synchronously – in real time and asynchronously – during the time that each has at its disposal.

Synchronous instruction involves a structured learning strategy, in which teaching activities are scheduled at announced times, address study groups called virtual classes, and students benefit from real-time interactions. These courses can be offered by video conference, web conference, audio conference. Asynchronous online courses are courses in which students do not participate in teaching activities at the same time as teachers, and the content of learning is provided through study resources to which they have access. The training is based on materials dedicated to individual study, in print or digital format, implemented on specialized teaching, learning and elearning management platforms. Asynchronous online courses do not involve real-time interactions between participants.

Both synchronous and asynchronous learning require the use of tools and each has advantages and disadvantages.

Synchronous learning, virtual presentations made through virtual classes, involve the use of tools such as Zoom, Google Teams, Webex, Microsoft Teams. In this type of learning the teacher and students meet in a virtual classroom via computer or mobile devices. Students can see the teacher's presentation on the screen and communicate with the teacher using the microphone or writing in the chat area. If the presentation, teaching and learning take place through such a virtual classroom it is important to have an online space where the teacher posts all the study materials and activities in an organized way, such as a file from Google Drive. It is also important to establish a means by which students submit their homework. Divided applications (Whiteboards) are also a way of synchronous interaction, in which students participate by working as a team on the software application. There are two ways to use the application: as a means of learning how to use the application itself but also for learning concepts and skills. The advantages of this mode of interaction are the simulation of reality and the encouragement of group learning. In the case of asynchronous learning, through the eLearning platform, each teacher and student has an account in that platform. Each discipline is assigned a course, a space to which only the teacher and students in a class have access. In this course the teacher posts the studio materials, often in the form of presentations organized on lessons.

It is also important to have practical activities and exercises, interactive exercises and examples of solutions for each lesson. The teacher posts the homework and the students will upload their solution in response to that topic. In addition to homework, there may be assessment and self-assessment tests. Communication in an eLearning platform is done through discussion forums or direct messages. But, an eLearning platform can also allow the use / integration of virtual classes.

Competition and collaboration are practices that meet the modern school and are both necessary. Teachers need to balance the two forms of organization of educational work, creating learning opportunities focused on group activities that encourage competition and maintain constructive cooperation. "These two ways are by no means antithetical activity: actually, both involving at least a certain degree of interaction within the group, as opposed to individual behavior which takes place with little reference to other activities. Moreover, increased competition between groups occurs in the context of an intensive cooperation and momentum within the group affiliation." (Ausubel, David P, 1981).

The advantage of an eLearning platform is that it has all the tools for school activity management, student management and reports on who and when was present on the platform, who went through the study materials and activities, catalog of grades, various means of communication. E-learning platforms also have a number of other advantages, such as access to knowledge, at any time and from any location: students can collaborate and learn together, fosters creativity and the discovery of new interpretations, it allows access to new skills required by modern life, the teacher can address a much larger number of students than in traditional education. Materials can be customized, possibility to change the information disseminated, the interaction with the teacher is free, without constraints, the student can learn at his own pace, online education is organized by subjects, not by age groups.

3. Research methodology

The act of learning is no longer considered to be the effect of the teacher's actions, but the fruit of the student's interactions with the person who conducts the learning, with the computer, with the mobile phone, with the information sources made available (Internet, online collaborative learning environments). Education is going through massive changes and at an unprecedented pace. Technology has made its way to classrooms, enhancing the interactive elements and involvement that many students benefit from. Today's students are already familiar with various technologies, so computer tools and applications make sense in the educational environment. Technologies such as augmented reality (AR), virtual reality (VR) and mixed reality (MR), robotics and artificial intelligence (AI) are already changing the face of education. The combination of real and virtual can be designed to allow people to process information more easily. Classical methods are outdated and do not emphasize creativity. In the age of technology, imagination is the only limit. Our attention is divided in all directions, being increasingly difficult to channel. VR is the tool that helps to involve students in the learning process.

Education is an area that has adopted virtual reality for teaching and learning situations. Virtual reality is not only a fun and immersive activity for children and adults, but it has many benefits in education. Virtual reality in education can enable experiential learning by simulating real-world environments. Students can test their skills, record their work and interact with VR mentors. The advantage is that VR allows large groups of users to interact with each other within the same three-dimensional environment. VR can present users with complex data in an accessible way to make learning enjoyable and easy. Moreover, users can interact with these objects in the given environment to discover more information about them. Virtual presentations can also take place through the fascinating concept of virtual reality and augmented reality that questions the objective perception of time and space; students experience the learning process while in an incredibly real virtual world that they can explore.

The advantages of using virtual reality include overcoming the barriers imposed by time and distance, by focusing on the student and the possibility of bringing new methods of instruction into the teaching act. The virtual reality learning experience offers many advantages: it makes it easier for students to communicate between them wherever they are and facilitates global learning that promotes not only the acquisition of digital knowledge and skills, but also the understanding of different cultural and social perspectives through the international learning environment.

Virtual reality used in an educational context can also help students develop different perspectives on the environment. Virtual reality stimulates students' imagination, allows them to travel through time and space and enjoy unimaginable experiences. Students will become more involved in the educational act and find inspiration in landscapes around the world; following exposure to 3D content, they will better understand the theoretical concepts within the subjects studied – physics (balloon flight), biology (the surrounding world, the human body) etc. Immersion in a virtual world is one of the best ways to learn a foreign language. VR simulations are used by a large number of language learning applications. The virtual environments of some applications have been developed so well that the user's mind considers it to be plausible. Some applications allow students to connect with students around the world and communicate while playing games in a virtual universe.

The two approaches, in tandem, can facilitate multidisciplinary learning and enrich teamwork in a multidisciplinary context. All of these make use of the learning experience through virtual reality and increased interest for those who find social interaction difficult.

Moreover, adapting experiential learning to the online environment offers the opportunity to use new methods that, when incorporated into a clear digital education strategy, offer benefits to both students and those who teach them. Virtual reality is becoming more and more present in our daily lives, and today we are talking about how it and augmented reality are already revolutionizing education. Augmented reality technology extends to the real world by adding elements of digital information over what we can see with the naked eye, improving the environment by adding sound, video and graphics. Augmented reality has also been categorized as one of the most interesting

technologies that can be used in education because it brings into the current reality virtual elements and provokes the senses of participants.

In education, augmented reality applications offer new methods of learning, with virtual presentations forming a link between the real and digital worlds. The researchers reported the positive impact of learning with AR as opposed to the classical one, namely a better understanding of matter, learning the three-dimensional structure and its function, learning the association of language, longer-term learning, improved physical performance, improved collaboration, increased motivation from the students.

Researchers have also reported negative impacts of this type of teaching, all of which are easy to avoid with limited attention to one thing, difficulties in use, inefficient integration in the classroom, differences in learning between students. Augmented virtuality (AR) is a concept created by Milgram in 1994 to designate those systems that are largely virtual but contain image inserts from the real environment. AR is an imaginary layer superimposed over the real world, visible with the help of devices such as computers, smartphones, tablets, glasses and other devices that allow users to recognize this media that can consist of images, videos, sounds.

4. Findings

A situation of the use of augmented reality is when images of the surrounding reality are captured using a mobile phone; Subsequently, depending on the delimiters detected inside the first image, digital objects are added; the two sets of images are displayed simultaneously on the mobile phone screen. Augmented reality could have promising implications for the world of education in terms of animated lessons, virtual presentations that could become easier to understand. Interactive technology could also make education more efficient. Augmented reality in education can serve several purposes. It helps students easily obtain, process, and remember information. In addition, AR makes learning more appealing and fun. It is also not limited to a single age group or level of education and can be used just as well at all levels of schooling, from pre-school to college or even at work. Augmented reality apps can complement a standard curriculum by adding a graphic, video, text, or audio file to a student's studio material in real time. The benefits of augmented reality in education are multiple. Augmented reality has the potential to replace printed textbooks, offering portable and less expensive teaching materials. As a result, education becomes more accessible. No special equipment is required. Since most teens currently have a smartphone, AR technologies are immediately available for use by most target audiences. AR learning, which is interactive and marked by the concept of gamification, can have a significant positive impact on students. Keeps them engaged throughout the lesson and makes learning fun and effortless. Augmented reality apps offer enormous opportunities to diversify and eliminate boredom. Interactive lessons, in which all students are involved in the learning process at the same time, help to improve teamwork skills. AR in education helps students achieve better results through complete visualization and immersion in the subject. A picture is worth a thousand words. Therefore, instead of reading a theory on a certain topic, students can see it with their own eyes, in action.

Augmented reality has been applied in all subjects in higher education, including; environmental sciences, ecosystems, grammar, chemistry, geography, history and medicine. Virtual reality and augmented reality are special technologies that bring a new dimension to interactions with the digital world. Both come with a new set of opportunities for various fields, bringing with them the potential to make our lives easier.

Technology comes with its drawbacks. Technology is advancing day by day and not all people are up to date with the news. That is why there are often problems of using and accessing information or carrying out projects or themes. There are also situations of confusion and disorientation, hence the lack of motivation. Devices break down without warning, falling internet connection and freezing platforms can cause disasters for lessons, especially when the teacher covers important information or when students are at a crucial point in their classes. The same can be said when either the teacher or the student has started the course and is not given adequate time to check how the platform works. Without software knowledge, unnecessary delays can be created that have a negative impact on the learning experience. This can be combated by reading the user guides and making sure that the functionality has been tested before the lessons start. In a physical

classroom, it is often easier to encourage students to focus on the task at hand and not distract themselves. When working from their own homes, there may be other things to get their attention from the lesson. Of course, in a physics class, they can distract each other, and this is easy to avoid in a one-on-one lesson. But messages on your computer screen, pets jumping on your keyboard, and children who hear in the background, can lower the student's attention. Students studying online outside the teacher's regular hours may find that they lack guidance when they need it most. For example, addressing a particularly difficult task can best be avoided, as it can lead to confusion and frustration. Everyone has to study both in their time and in class with the teacher, and this should of course be encouraged, but focusing on reading or simpler tasks might be best suited for those for whom taking the course is quite difficult.

5. Conclusions

Virtual reality and augmented reality have proven to be new and evolving technologies applied in increasingly diverse fields that will completely change the real world. They will improve the experience of users in different fields, by developing another way of interaction and socialization. Both online and offline teaching environments offer a number of benefits as well as challenges. With the advent of VR and AR, geographical boundaries were easily exceeded, the decision to create virtual teams being a very simple and easy to adopt, based on lowering the costs of travel between locations and increasing the efficiency and productivity of these teams. The solutions to reduce the distance between these teams were by using VR and AR in organizing meetings so that people could see each other and even feel like they were at the same table in the same room. This reduced the sense of isolation and increased cohesion. Efficiency has increased because working in a virtual team has eliminated the disruptive factors present in interactions within a physical office, and using augmented reality you can work on a task while a colleague can give you live feedback on what you do.

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Studies on the Antitumor Action Mechanisms of *Usnea barbata* (L.) F.H.Wigg from Romania

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Abstract

Our previous studies it has been shown that the Usnea barbata (L.) extract has antitumor effect and also we tried to elucidate the mechanisms of the cancer cells death. Given the fact that proteins are fundamental elements for maintaining life, it is estimated that the decrease in the amount of total protein leads to cell death. The working hypothesis of our study is that different concentrations of Usnea barbata (L.) extract induces death of tumor cells through this mechanism. Analysis of obtained results, showed that at the concentration of 100 µg / mL lichen extract, the amount of soluble proteins is similar to the value recorded in the control. In contrast, at the maximum dose tested (400 µg / ml), the protein content decreased significantly, being almost 3 times lower compared to the control, thus proving the cytotoxic effect of the tested Usnea barbata (L.) extract.

Key words: Usnea barbata (L.), antitumor potential, CAL27 tumor cells, proteins
J.E.L. classification: I10

1. Introduction

Cancer is a heterogeneous class of diseases, characterized by the uncontrolled division of cells and their ability to invade, from close to close, neighboring tissues and to metastasize, by lymphatic or hematogenous, loco-regional or distant, to other tissues and organs; it has an estimated global incidence of 6 million cases per year, being the second leading cause of death after cardiovascular disease (Einarsdóttir *et al.*, 2010).

Oro-maxillofacial malignancies are generally characterized by: infiltrative-destructive tumor growth with local invasion and loco-regional and distant metastatic dissemination (with the formation of cervical metastases, or in more distant organs) (Nuñez-Aguilar *et al.*, 2018).

The National Institute for the Study of Cancer shows that the overall survival rate in this type of neoplasms is 63% and that its value varies depending on the area of localization in the oral cavity and the time of initiation of treatment; thus, if treated at the onset of the disease, oral cancer has a survival rate of 84%, compared to: 65%, if it spread to the lymph nodes of the neck and 39%, if it spread at a distance (Dhanuthai *et al.*, 2018).

It is known that most synthetic chemotherapeutics currently used in antitumor therapy develop resistance over time and have non-selective toxicity against normal cells; these side effects, combined with side effects and multiple drug interactions, are major disadvantages of chemotherapies (Yin *et al.*, 2019).

Therefore, obtaining new antibacterial and antitumor drugs remains a major clinical challenge. In this context, plants are a valuable source of biologically active natural compounds, and research is aimed at their use in anti-infective and anti-cancer therapy. Isolated constituents may be useful as

alternative therapeutic agents or as core nuclei for new synthetic products with increased activity and / or reduced toxicity (Zitvogel *et al.*, 2013).

Lichens are also found in the category of plants that have remarkable antitumor, antibacterial and antioxidant properties (Shrestha and St. Clair, 2013).

They are a unique group in the plant world and, at the same time, are the most widespread symbiotic organisms in nature, inhabiting more than 8% of the earth's surface (Ranković *et al.*, 2012).

An important representative of lichens is the genus Usnea Dill. ex. Adans, with over 350 species spread over the entire surface of the globe (Prateeksha *et al.*, 2016). It is clear from the literature that many species belonging to this genus have been used in traditional medicine for thousands of years, in the treatment of various diseases (Shanmugam *et al.*, 2017). Representatives of the genus Usnea are also found in Romania; thus, starting from all the considerations mentioned above, the idea of carrying out our studies, which aimed to highlight the antitumor action of Usnea barbata (L.) F.H. Wigg., harvested from the Călimani mountains (900 m), Suceava county.

2. Theoretical background

By the UHPLC-ESI-OT-MS-MS technique, in Usnea barbata (L.) F.H.Wigg. the following groups of secondary metabolites have been isolated:

- Depside: barbatolic acid, thamnolic acid, haemathamnolic acid, lecanoric acid, gyrophoric acid, diffractaic acid, methyl-8-hydroxy-4-O-divaricatic acid, barbatic acid (figure 10), sekikaic acid, 8-hydroxybarbatic acid, atranorin and chloroatranorin;
- Depsidone: salazinic acid, connorstictic acid, siphulellic acid, galbanic acid, norstictic acid, α-acetylconstictic acid, stictic acid, lobaric acid;
- Lipids: tetrahydroxyyeicosanoic acid, tetrahydroxydocosanoic acid tetrahydroxytricosanoic acid, tetrahydroxydocosanoic acid, tetrahydroxyhexacosanoic acid, nonahydroxyoctacosanoic acid heptahydroxytricosatrienoic acid;
- Diphenyl ethers: β-alectoronic acid;
- Dibenzofurans: usnic acid (Salgado *et al.*, 2018).

These secondary metabolites are responsible for many biological actions, including the antineoplastic effect of lichen extracts; In numerous studies in the accessed literature, this activity has been evaluated, and the results obtained so far are promising (Molnár and Farkas, 2010).

Although extracts of Usnea barbata (L.) F.H.Wigg. have been used for thousands of years in traditional medicine, there are currently few scientific studies on their antitumor potential. In the scientific literature various anticancer mechanisms if lichens are mentioned: cell cycle arrest, Inhibition of growth factor signalling and DNA repair, disabling replicative immortality by inhibiting telomerase activity, inhibition of invasion and metastasis , supression of genome instability, apoptotic cell death, necrosis, autophagy, ROS-Dependent Mitochondria Molecular Mechanisms (Tram *et al.*, 2020).

These aspects were the basis of our researches; I believe that the evaluation of the antitumor mechanisms of Usnea barbata (L) F.H.Wigg. could lead to the optimization of treatment regimens for oncological pathology, especially in oral cancer (Popovici *et al.*, 2020).

Our previous studies have been shown that the death of tumor cells is real and also tried to elucidate the mechanisms by which this phenomenon occurs.(Popovici *et al.*, 2020).

Given the fact that proteins are fundamental elements for maintaining life, it is estimated that the decrease in the amount of total protein leads to cell death (Ettinger, Ganry and Fernandes, 2019). Based on these considerations, the working hypothesis of our study is that the application of different concentrations of Usnea barbata (L.) F.H.Wigg extract generates the death of tumor cells through this mechanism (Deo, Bijlani and Deo, 1979).

3. Research methodology

✓ Obtaining the dry lichen

The heels of Usnea barbata (L.) F.H.Wigg. were picked manually, directly from the branches of conifers, in march 2020. The freshly harvested plant material was cleaned of impurities and dried at a constant temperature, below 25oC, in an airy room, sheltered from the sun's rays. After drying, the vegetable product obtained was kept for a long time under the same conditions, for use in subsequent studies. The identification of the lichen species was realized at the Department of Pharmaceutical Botany of the Faculty of Pharmacy, Ovidius University, Constanta.

✓ Obtaining the dry lichen extract

To obtain the dry extract, the lichen was ground in powder form and kept for 8 hours with acetone, at 70o C, in a continuous reflux on Soxhlet. After the completed reflux the TURBOVAP 500 Caliper rotary evaporator was used to evaporate the solvent; the dry extract (UBE) was transferred to a glass vessel with a sealed lid and stored in the freezer at a temperature below -20 ° C until further processing (Popovici *et al.*, 2019).

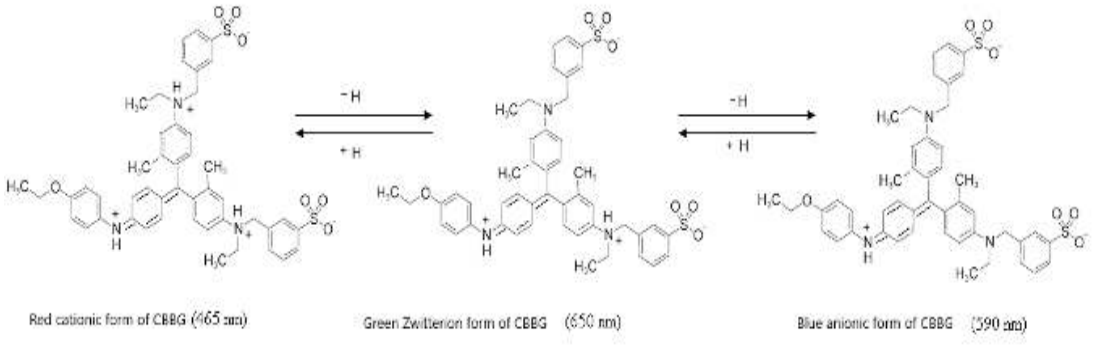
✓ Protein dosing by the Bradford method

The Bradford method is a sensitive analysis; it can dose proteins with a concentration between 0.1 - 2 mg / mL.(Aminian *et al.*, 2013)

Principle of the method

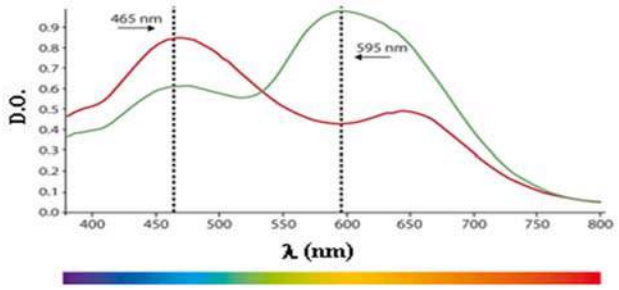
In a strongly acidic medium, Coomassie Brilliant Blue G (CBBG) is predominantly red, with a maximum absorbance of around 465 nm, and a green form with a maximum absorbance at 650 nm and to a lesser extent in blue anionic form, with a maximum absorbance at 590 nm (*Figure no. 1, 2.*). Of the ionic forms of CBBG, only the anionic form binds to proteins at the level of positively charged lysine and arginine residues, forming a blue complex. Simultaneously with the formation of the blue complex there is a change in the maximum absorption capacity from 465 nm to 595 nm *(Figure no. 2*). The color intensity measured at 595 nm is directly proportional to the amount of protein in the sample to be analyzed (Aminian *et al.*, 2013).

Figure no. 1. Ionic structures of CBBG



Source: (Aminian *et al.*, 2013)

Figure no. 2. Changing the maximum absorption range of CBBG in the presence of proteins, from 465 nm to 595 nm



Source: (Aminian *et al.*, 2013)

Reagents

- Standard solution of bovine serum albumin (BSA) 2 mg / ml prepared extemporaneously in the same medium in which the proteins were extracted;
- Bradford reagent: 100 mg of CBBG is dissolved in 50 ml of 95% ethanol. The alcoholic solution is mixed with 100 ml of 85% phosphoric acid and made up to 1 liter with distilled water;
- Total protein extract (EPT);
- Extraction medium (Kamizake *et al.*, 2003)

Phases of the working technique

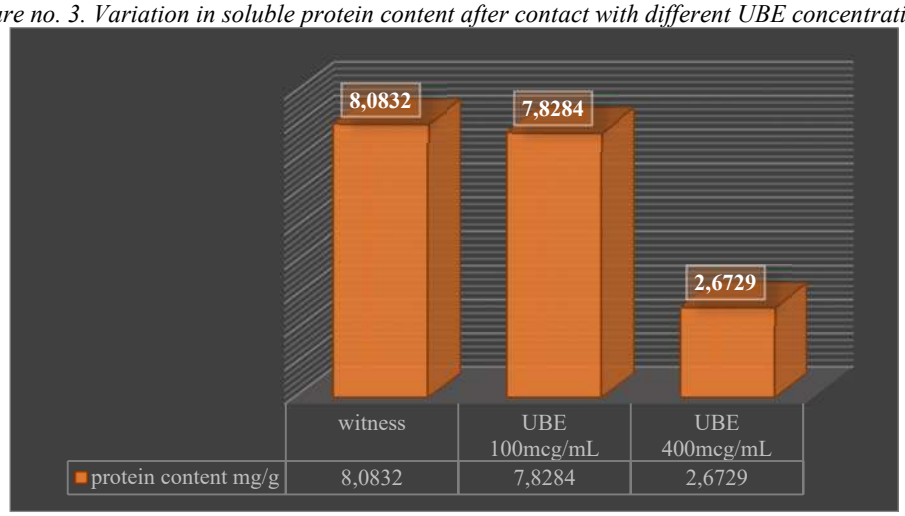
- dilutions of EPT are made whose concentration in proteins we want to determine;
- few dilutions are made from the stock solution of 2 mg / ml BSA
- in a 96-well plate, pipette 5 µl of each sample (consisting of EPT dilutions) and each standard (dilutions of the BSA stock solution from tubes 1 - 7) into separate wells and add 250 µl. Bradford reagent;
- the plate is shaken for 30 s and left to stand for 15 minutes at room temperature;
- an automatic plate reader reads the optical densities (extinctions) of both EPT-containing samples and BSA standards at a wavelength between 590 - 690 nm;
- a standard curve is drawn noting on the abscissa the protein concentration in mg / ml and on the ordinate the values corresponding to the BSA standards;
- using the standard curve, the units of D.O.595 obtained for EPT dilutions are transformed into concentration values (mg / ml) and multiplied by the corresponding dilution factor (Martina and Vojtech, 2015).

4. Findings

Analysis of the obtained results showed that at the UBE concentration of 100 µg / mL the amount of soluble proteins is similar to the value recorded in the control.

In contrast, at the maximum tested dose (400 µg/mL), the protein content decreased significantly, being almost 3 times lower compared to the control, thus proving the cytotoxic effect of the lichen extract *(Figure no. 3.*).

Figure no. 3. Variation in soluble protein content after contact with different UBE concentrations



Source: Authors' contribution

Discussions

In previous cytotoxicity studies on CAL27 tumor cells line, we demonstrated that the maximum cytotoxicity at 24 hours was recorded at the value of the UBE concentration of 400 µg / mL (2 times higher than at 100 µg / mL (Popovici *et al.*, 2020); in the present study, at this value of the UBE concentration, there was a marked decrease in soluble proteins (3 times higher than at 100 µg / mL).

One possible mechanism by which significant decreased of total proteins content could cause tumor cell death at the same concentration of UBE would be intense intracellular induced oxidative stress. Reactive oxygen species (ROS) production and thiol redoxstate imbalance are induced immediately upon protein deprivation and represent important mediators of autophagy, and, finally, for tumor cells death (Filomeni, De Zio and Cecconi, 2015).

Neoplastic cells have a higher specific aminoacids (glutamine, arginine, asparagine) demand versus normal cells; by total protein decreasing, these aminoacids become unavailable. For example, the tumor cells are considered as glutamine-addict, such that glutamine deficiency may induce apoptosis (Kwong Lam Fung and Chi-Fung Chan, 2017).

5. Conclusions

The results of this study show the possibility of correlation between the significant decrease of total proteins content and the high cytotoxic effect on CAL27 tumor cells, both recorded at the same concentration of UBE.

Its paves the way for discovery of the possible molecular mechanisms that could explain the antitumor effect of Usnea barbata (L.) F.H.Wigg., which could be triggered by protein/aminoacids deficiency.

6. Acknoledgement

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Consumers Perceived Prospects and Benefits Regarding the Nanotechnology Practices in the Fashion Industry

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Abstract

Nanotechnology appeared as an interdisciplinary science that was meant to revolutionize the process of realizing clothes, supplying innovative chemical, organic, and psychical features that were not attainable previously.

The present paper proposes to investigate the consumers' awareness, risks, and benefits beliefs about the nanotechnology procedures employed in the fashion industry production. In this regard, we administrated a survey on Romanian consumers; aged 18-30 years. To the collected data, we applied an exploratory analysis, followed by confirmatory factor analysis. The results indicated two factors and good psychometric properties of the designed scale, while the fit indices recorded excellent scores. Also, the performed analysis revealed that consumers are willing to buy garments realized with nanotechnologies, followed by house cleansing products, while cosmetics and food realized with nanotechnology procedures are at the end of their shopping list.

Key words: Nanotechnology; Nanomaterials; Fashion Industry; Risks; Consumer Behavior.
J.E.L. classification: C38; D12; L67; O31.

1. Introduction

The spread of nanotechnology practices, in the generation of innovative techniques or technologies to promote the conservation of resources in the production processes or to enhance people's lifestyles, came with a series of doubts from consumers regarding their potential harmful health and environmental impact due to their unique and their unpredictable properties.

Nanotechnology appoints a fast-growing science that manifests a great impact on the actual abilities of creation and production by giving properties and benefits that were not available until now. Nanotechnology brings new perspectives of the chemical, environmental, biological, and information technology industries supplying properties that we considered impossible in the past.

When it comes to the fashion industry, nanotechnology phenomena can ease the production of clothing items through the efficient use of existing resources. Due to the preservation of the physical and thermal properties offered by those commodities and due to the durability of the materials used, clothing items designed with nanomaterials could stand as an alternative to traditionally made textiles.

The actual research proposes to figure out consumers' awareness regarding nanotechnology practice in the creation of fashion items, to measure their perceived risks and benefits about those procedures, and to test the consumer's intention to adopt those products in the future. In this regard, we implemented an exploratory analysis. We collected data using a survey applied to Romanian customers aged 18-30 years. Secondly, we performed a confirmatory factor analysis.

The paper we structured as follows. In the first part, we realized a short review of the existing studies in the area, the research method, and the presentation of findings. In the last part, we present conclusions, limitations, and directions for future research.

2. Theoretical background

Consumers' knowledge and beliefs stand as essential aspects of the general understanding of science. The scientific literature revealed that consumers display trust and more willing to admit novel technologies when specialists consider their ambiguity and their misunderstanding of science (Roco, 2003).

This perspective affects the nanotechnology spread, practitioners considering that this new phenomenon will become an essential vector in science and economics in the new world order.

Several studies showed that in our days, most people manifest a low level of awareness about the nanotechnology domain. In this respect, earlier research (Waldron et al., 2006) revealed that 60.00% of study participants do not show knowledge of nanotechnology, while another study (Macoubrie, 2006) revealed that 95.00% of participants do not heard of nanotechnology before being part of the study.

Earlier studies related to the consumers' attitude on the nanotechnology revealed that people focus on the benefits provided by the nanotechnologies rather than the risks (Burri and Bellucci, 2008). Also, consumers manifested a positive attitude toward nanotechnology, considering that it could offer important opportunities in the future (Cobb, 2005; Macoubrier, 2006).

Studies conducted in Europe revealed that consumers manifest indifference and ambiguousness toward nanotechnologies (Gaskell et al., 2005). In contrast, consumers from the United States perceived the benefits of nanotechnologies as being higher than the risks (Cobb and Macoubrier, 2004).

Earlier research revealed that negative effects on health and environmental concerns are some of the principal motives that figure out consumers to manifest a reluctance attitude toward nanotechnologies. Also, consumers doubt about the long-term effects of nanotechnologies (Burry and Bellucci, 2008) due to their potential to disregard privacy.

To benefit of the opportunities provided by nanotechnologies, it is essential to educate people about nanotechnology, to transfer the know-how through education to the coming generation to develop the needed knowledge, abilities, or competencies.

Nanotechnology and the use of nanomaterials in the production of textiles appoints a relatively novel domain of science and technology. In this regard, the consumers' possible benefits of those types of applications could balance against its potential adverse effects.

Potential benefits include aspects relates to higher durability, better use of the resources, environmental protection. On the other side, consumers try to minimize the potential negative effects of nanotechnologies, like the integration of nanoparticles in the human body or through actions that could cause health problems through their spread in the natural environment or their integration in food.

Existing research (Starr, 1969) revealed that people are inclined to assume risks as time as those are associated with potential benefits provided by that technology. In this respect, we considered that it is essential to investigate the public beliefs about nanotechnologies in general and particularly through their usage in fashion production. When people are well informed, their reluctance to change will reduce because the potential risks are known and it is known how to avoid them, allowing the realization of technological advances and facilitation of people's life.

3. Research methodology

As a tool to collect data, we applied an own designed questionnaire meant to measure consumer's awareness and their perceived risks and benefits toward the usage of nanotechnologies in the production of fashion items. We ranked the items on a ninth Likert Scale, where one corresponds to a total disagreement response, while nine corresponds to a total agreement response.

We collected 207 responses from consumers aged 18-20 years. Concerning the gender distribution in the collected sample, there were 161 women (77.90%) and 46 men (22.10%), while regarding the residence, 156 (65.40%) respondents are from the urban area and 71 (34.60%) are from the rural area. We present descriptive statistics in the following (Table 1).

Table no. 1 Descriptive Statistics

Item	Classification	N = 207	
		No.	
Gender	Women	161	77.9%
	Men	46	22.1 %
Residence	Urban	156	65.4 %
	Rural	71	34.6 %

Source: Author's calculation

To the collected data, we applied several statistical methods. We verified the existing correlations among variables, followed by the exploratory analysis and confirmatory factor analysis. We performed all procedures using the R statistical and programming software (R Core Team, 2020).

4. Findings

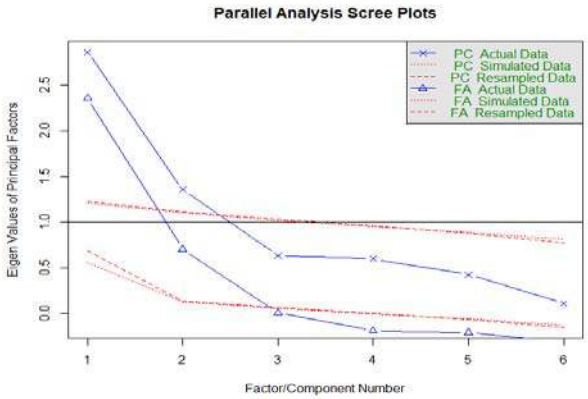
The first step in factor analysis will consist of a visual representation of the existing associations among variables. We see that some variables present exceptionally low correlations (Figure no.1), so we considered it proper to exclude them from the analysis.

Figure no. 1. Variables Correlations



Source: Author's calculation

Figure no. 2. Parallel Analysis



Source: Author's calculation

Secondly, we applied the Kaiser-Mayer-Olkin-Statistics of sampling adequacy to check the appropriateness size of the sample to run an exploratory analysis. The scientific literature (Kaiser, 1974) considers the obtained result of 0.70 as being a "middling" score. Further, we employed the *parallel* analysis scree plots (Figure no.2) to figure out the ideal number of factors and the software suggests the existence of two factors.

The exploratory analysis revealed that the first factor explained 33.7% of the variance, while the second factor explained 24.1%. In terms of reliability, the Cronbach Alpha registered scores of 0.83 in the case of the first identified dimension, named nanotechnology awareness, respectively, 0.71 in the case of the second dimension, named perceived risks and benefits of nanotechnology.

Table no. 2 Fit Indices Confirmatory Factor Analysis

	Items	Factor Loading	Cronbach Alpha
Nanotechnology Awareness	I have knowledge about nanotechnologies in general.	0.887	0.83
	I have knowledge about nanotechnologies used in the production of clothes.	0.994	
	I have knowledge about the fact that nanotechnology could be harmful to my health.	0.486	
Perceived Risks and Benefits of Nanotechnology	I think that I will wear clothes realized with nanomaterials.	0.673	0.71
	I believe that there are more benefits than risks in clothes realized with nanotechnologies.	0.796	
	I believe that scientists are interested in lowering the potential risks caused by nanotechnologies.	0.583	

Source: Author's calculation

Further, we implemented a confirmatory factor analysis to the obtained factors to check the performance of the obtained factors. To diagnose the model, we estimated the fit indices showed in the following table (Table 3). In the case of the Goodness of fit, Normed Fit Index, Tucker Lewis Index we aspire to values greater than 0.95. In the case of the Adjusted Goodness of Fit and Comparative Fit Index, values greater than 0.90 are considered goods scores. In this case, we obtained values of 0.990, respectively 0.994. Regarding the root mean square error of approximation and standardized root mean square residual, it is desirable to obtain values lower than 0.08. In the case of all fit indices were obtained incredibly good scores.

Table no. 3 Fit Indices Confirmatory Factor Analysis

Measure	Name	Value	Cut-off
X^2	Model Chi-Square	11.257/ P-value = 0.188	p-value > 0.05
GFI	Goodness of fit	0.997	GFI ≥ 0.95
AGFI	Adjusted Goodness of Fit	0.990	AGFI≥ 0.90
NFI	Normed Fit Index	0.979	NFI ≥ 0.95
TLI	Tucker Lewis Index	0.989	TLI ≥ 0.95
CFI	Comparative Fit Index	0.994	CFI ≥ 0.90
RMSEA	Root Mean Square Error of Approximation	0.044	RMSEA < 0.08
SRMR	(Standardized) Root Mean Square Residual	0.033	SRMR < 0.08

Source: Author's calculation

In the latest part of the analysis, we questioned respondents about the most significant risks and benefits that they distinguish in the use of nanotechnologies in the clothing creation process.

Regarding the risks, most respondents said that they do not have so much information's about the domain. The rest of the respondents said allergies, irritations, potential damages to health, a high level of toxicity, and pollution.

Concerning the potential benefits, most of the respondents found durability, ecological impact, lower price, high quality, and efficient use of the resources.

In the end, we questioned respondents about their intention to buy forthcoming products realized with nanomaterials. 51.30% of the respondents said that they would buy clothes realized with nanomaterials, 35.70% of respondents said that they would spend in the future in the acquisition of home cleansing products realized with nanotechnologies, 9.00% will buy makeups realized with nanotechnology procedures. Only 4.00% of the respondents are confident about the acquisition of food realized with nanotechnology procedures.

5. Conclusions

The present study proposes to investigate the consumers' awareness, risks, and benefits beliefs about the nanotechnology procedures employed in the fashion industry production. In this respect, we developed a scale through exploratory factor analysis and validated through confirmatory factor analysis.

The reliability analysis revealed good psychometric properties of the developed scale, while the fit indices of the confirmatory factor analysis registered excellent scores.

Also, our study revealed that consumers' awareness of nanotechnologies is low, and they perceived those new technologies as a potentially harmful factor for their health status and lifestyle.

We believe that the knowledge and understanding of nanotechnologies play an essential role in reducing the consumers' resistance to those innovations. The belief that nanotechnologies encompass more risks than benefits may reduce by leading consumers to trust in nanotechnology applications.

The empirical results of this study could help understand consumers' forthcoming attitudes about nanotechnology applications in the fashion industry and to contribute to future research in this domain. However, there are some weaknesses in this study that we should consider when generalizing the findings.

Our first limitation is related to the sample that we collected; it is an unbalanced sample. We hold in our sample more women than men, and this aspect could affect the obtained result.

The second limitation comes from the fact that we investigated people's awareness, their perceived risks, and benefits related to the usage of nanomaterials in the fashion industry. Future studies propose to further investigate public attitudes toward more specific nanotechnology applications in the fashion industry.

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The Trend of the Hospitality Industry and the Advantages Versus the Disadvantages of Investing in the Workforce

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Abstract

The hospitality industry, although attractive to many entrepreneurs, is among the riskiest areas of activity in Romania. Challenges and risks can occur at any step. The human resource working in the hospitality industry is inadequately prepared, this leads to the failure of hospitality business. That's why the right people, in the right places, responsible people who value work, especially in a field with as many challenges as the hospitality industry, will always remain an essential factor of success.

In this research we proposed new measures for the training of the workforce in a system of continuous training carried out by Ministry of Labour and social Protection for vulnerable target groups made up of unemployed and students. The study was carried out by static analysis of the demographic evolution of Romania, the trend of the labour market.

Key words: hospitality industry, human resources, benefits/disadvantages workforce in tourisms
J.E.L. classification: M31

1. Introduction

Even a brilliant business idea can be doomed to failure, if managers do not show prudent spirit, taking all necessary measures to carry out their professional plans in the direction of business development. Emigration today is synonymous with the search for professional satisfaction. One of the main criteria for selecting a job is the salary level. Therefore, the number of Romanians who choose to work abroad is not negligible. They want better paid jobs, both for personal satisfaction and especially to support their family. Thus, 200 Romanians leave the country every day, more than 50% of them being men aged between 30 and 40 years. In an interpretation of these data, we find that emigration is a common phenomenon among those who represent the "head of the family". In other words, men are forced to leave the country to earn an amount to cover the total expenses of the family, in the context in which the salaries in the host countries are higher than those in Romania, for the same positions. (Manager.ro, https://www.manager.ro/articole/companii-si-firme-34/deficitul-de-personal-din-industria-horeca)

2. Literature review

Ecotourism trends indicate not only an increase in demand, but also a transformation of it, from a niche market, into a main segment. Tourism in protected areas also has a positive evolution, registering an increase in interest in this type of travel. It is estimated that worldwide protected

natural areas receive 8 billion visitors annually, of which 80% are registered in protected areas in Europe and North America. (Cristureanu C., 2006, p.72).

Ecotourism attracts those tourists who want to interact with the natural environment and want to widen their level of knowledge, understanding and appreciation. One of the tendencies that fuel the growth of this form of tourism is the travels 'preference to choose educational holidays that would enrich their existence (Megan Epler Wood, 2002, p. 38).

Nowadays, due to the regression registered by the hospitality industry in 2020 due to the pandemic caused by Sars-Covid 19, all the factors involved in tourism are interested. For tourism in protected natural areas, diversifying the offer and improving ecotourism services, by the fact that currently protected natural areas offer many opportunities for holidays, active participation is one of the significant trends of tourism in protected areas, promoting ecotourism as the main tourist activity in protected areas.

In the world, this style of traveling is considered harmless, with many followers. In the perspective of daily life, the quality of the environment, the lack of pollution, the cleanliness and attitude of the local population will be much more important for potential tourists than the variety of possibilities for entertainment and shopping (Bucur-Sabo M., 2006, p.69).

Through the development of these new forms of tourism, the preferences of tourists have also changed quite a lot. Thus, various market studies have shown a sustained interest among tourists-consumers in terms of tourism products and services that protect the environment, respect local culture and traditions.

Among the foreign tourists respondents to the survey stated that they would have taken into account the ecological footprint during their vacation between 2014 and 2017.

2.1. Lack of human resources, cause of decline of restaurants

Emigration leads to one of the biggest challenges facing entrepreneurs in the hospitality industry: staff shortages. It is not uncommon for a restaurant to reach the brink of bankruptcy due to the insufficient number of employees. For example, in a restaurant where many people come every day, the activity of the employees is intense. These, being in too small a number, end up, at some point, no longer meeting the requests and needs of customers, which, happening repeatedly, creates a general state of dissatisfaction among those who frequent the restaurant.

Finally, the brand's reputation is seriously damaged or even destroyed. If there are not enough employees to cope with the restaurant's activities, the business will begin to decline.

Another human resource problem in the hospitality industry is the lack of professional skills of employees. Unsatisfactory communication, poor quality serving conditions, questionable way of preparing food are just some of the negative aspects often encountered in restaurants in Romania. On a deeper analysis, these are also closely related to the phenomenon of emigration: Romanians who have the necessary skills choose to work abroad, due to better earnings, and the current workforce is no longer sufficient.

In this context, entrepreneurs, looking for staff to help them carry out their activity end up hiring people whose professional skills do not live up to the requirements and expectations in the field. In reality, the lack of human resources and poorly prepared human resources are two equally serious problems, causes of the decline of a significant number of restaurants in our country.

2.2. Asian human resources, a solution for staff shortages

Romania remains one of the countries where emigration is a common phenomenon, but the number of foreigners who come to work here must also be taken into account. Their social and economic situation is similar to ours: the salaries in their native countries are not satisfactory and are lower compared to those offered in Romania.

The workforce abroad is a real opportunity for the hospitality industry, an opportunity that more and more entrepreneurs have started to capitalize on. Asian staff is often found in many restaurants in the country, due to the professional qualities they have. Vietnamese, Nepalese, Filipinos - all

appreciate the work they do responsibly because of the educational system in which they were raised.

Therefore, entrepreneurs who intend to open a business in the hospitality industry or who already have one and are facing staff shortages, opt for the option of hiring Asians. Romanians began to become more and more open to the diversity of culinary tastes, which is reflected in the specifics of restaurants. Both in Bucharest and in the cities of the province, there are Asian restaurants, loved by customers for the experience they are offered: from local food, to the way they are served and the atmosphere of the place. At the same time, Asians represent the right human resource for international restaurants, due to the ability to adapt easily and due to the desire to develop. Thus, entrepreneurs who own Romanian or European restaurants find in Asian employees the necessary support to offer customers high quality services. For any business to be successful, it is essential to bring the "right person to the right place", the motto that International Work Finder has turned into the key principle of its recruitment activities. IWF comes to the aid of those for whom the labour force has become a real problem, by recruiting professionals from the most varied fields: from construction, to the SPA industry; from IT to the automotive sector. The hospitality industry is also one of the strengths of the recruitment company IWF: a lot of successful companies have hired, for example, Vietnamese workers through the International Work Finder, hardworking and respectful people for work. This recruitment company provides all the necessary support regarding the preparation of immigration formalities, which leads to time savings for employers. Most importantly, in order to assure its clients that they will benefit from a long-term prepared team, International Work Finder also considers the cultural integration of Asians, through workshops after which they will learn Romanian and English and will adapts to the Romanian cultural model. Thus, the risk of immigrants not getting used to it is significantly reduced. Moreover, for those exceptional cases, the recruitment company ensures the free replacement of the human resource, based on a guarantee that the clients benefit from (Manager.ro, https://www.manager.ro/articole/companii-si-firme-34/deficitul-de-personal-din-industria-horeca-).

The occupancy rate of accommodation structures in our country is only 30%. Romania has enough rooms in the accommodation structures to receive, annually, 20 million foreign tourists. Currently, the occupancy rate of foreign tourists in the total number of places-days is only 6%. An analysis Invitation Romania, for the first time, of the accommodation capacity and the degree of occupancy in Romania can be a much more attractive destination. Domestic tourism can no longer develop much, because there is a market limit. However, the granting of holiday vouchers has essentially contributed to the development of domestic tourism. Of course, if we were to witness a boom of incoming tourism, the demand being higher than the supply, naturally the number of investors in accommodation structures will increase.

According to the National Institute of Statistics, Romania had a total accommodation capacity of 343,720 places, of which, only in hotels, 193.280 places. As number of places-days, so overnight stays, the total accommodation capacity of Romania is 87,655,772 places-days, of which only the hotels have 50,771,353 places-days.

3. Research methodology

The most important radiography of Romanian tourism is given by the annual occupancy rate. The total number of overnight stays in 2017 was 27.092.523. If we report to the total of 87.655.772 places-days, it means that the occupancy rate was only 30.92%. For the tourist pensions, the index of the tourist use capacity was of 20.3%, and for the rural tourist pensions of 16.4%, which shows the option of the tourists to spend only the weekends. If we relate to domestic tourism and incoming, Romanian tourists spent 21,801,487 nights, and foreign tourists, 5,291,036 nights. We can say that out of the total overnight stays, foreigners had a share of 24.2%. Going further, the occupancy rate of foreign tourists in total places-days was only 6%. A problem of Romanian tourism is that, at certain times of the year, the occupancy rate is quite low. Following the statistics of the National Institute of Statistics, it is observed that in Romania there is still a seasonal tourism, most of the tourists opting for July-September, the holiday period for both Romanians and foreigners. Most foreign tourists who choose the destination Romania opt for cultural and thematic tours, between May and October, but it is not enough. We have the obligation, compared to the

Romanian tourism industry, to develop the incoming, which addresses a practically unlimited potential of clients. In order for these tourists to come more and more, we need an external presence as an image, the presence of offers on the world market and quality services. They form the triangle of success in incoming (https://www.gonext.ro/analiza-completa-a-turismului-romanesc-in-functie-de-numarul-de-locuri-de-cazare-si-de-gradul-de -ocupare /).

In the experimental study we aimed to analyse the potential of the Romanian workforce starting from the demographic evolution. Then, the experiment focused on the 10-39 age sample that represents the potential of the major workforce in our country. Through the analysis of this sample of the population, he directed us to the level of education by occupation categories, in order to find out if the hospitality industry in Romania has chances to adapt to the new trends. It also studied the distribution of the Romanian labour force.

In this study we aimed to correlate the investment in the Romanian tourism workforce with the future possibilities for the development of the hospitality industry and with the development of the Romanian economy in the medium term. Although the data recorded by the hospitality industry on a global level, but in Romania is declining, there is today a well-developed offer of tourist services, which is correlated with tourism jobs.

Even if in Romania the development of the hospitality industry did not work according to a performance Master Plan, it is still known that tourism is an economic branch that brings a lot of income to the gross domestic product.

That is why in this paper we analysed the results recorded in Romania in terms of the evolution of tourism in 2016-2020 as a request, then we highlighted the organization and dynamics of accommodation structures in Romania, correlated with the number of jobs in the hospitality industry.

Although, in the period 2016-2019, the increasing trend of the factors studied shows an increasing trend in 2020, there is a regression as a particular situation. However, there are a multitude of respondents in society who are interested in tourism jobs from the perspective of tourism business, but also decision makers who estimate that the decline in the share of tourism revenues can have a negative impact on the Romanian economy, on the one hand, partly due to the decrease in the turnover of the hospitality industry, on the other hand due to the unemployment generated by the tourism labour force. Therefore, the analysis of these factors was focused on solutions that lead to conclusions that can reduce as much as possible unemployment in the hospitality industry, implicitly to maintain the gross domestic product obtained by Romania so far, more gross domestic product to approach in the coming years of the one estimated for an optimal development of the Romanian economy.

3.1. The demographic evolution of Romania

From the statistical data registered in the statistical yearbooks of Romania, the situation of the demographic evolution is decreasing. Implicitly, the emigration of the population led to the lack of labour force, the shortage of personnel and the decline of the tourism and food units. Then, the lack or the low of professional competencies, superficial level of execution competencies in the field of tourist services.

3.2. Labour force trend in Romania vs European Union

The employment rate in the EU for people aged 20-64 was the highest in 2018, at 73.1%. Despite the continuing reduction in employment disparities, the employment rate was still higher among men than among women in 2018 in all EU Member States. 0.8% of employed women aged between 20 and 64 in the EU worked part-time in 2018, compared to 8.0% for men. The staffing crisis has led some hotel and restaurant owners to bring in employees from outside the European Union. Just as their colleagues who have gone to work in the hospitality industry in other countries have to integrate into a multicultural work environment, so those who have remained to work in tourism in the country will have to deal with the cultural shock of having colleagues from other cultures, from other denominations and who speak other languages. The sample of tourists

interviewed said they prefer products and services that have implemented the corporate social responsibility program and are willing to pay more for a vacation to a company that has an impressive track record in terms of environmental and social responsibility activities.

4. Findings

Promoting ecotourism for the sustainable development of a region or country makes various researchers for the evaluation of ecotourism to develop more and more strategies and methodologies due to the positive and negative effects on environmental, social and economic aspects of the country. Due to the high rate of beneficial impact, new ecotourism strategies help the overall development of the community, the country and the world. Consequently, cooperation between different stakeholders for a new approach in ecotourism, such as business environments - tourism entrepreneurs and an appropriate management policy for the sustainable implementation of ecotourism projects by communities is a Master Plan for regional development and medium and long term international.

The development of ecotourism means an economic impact, implicitly increasing the number of green jobs, by increasing the capitalization of resources, ecological by ensuring conservation and environmental protection, using rational resources as a whole, but especially natural ones, reduction, disposal and recycling. waste, reducing the theft of agricultural and forestry land from the agricultural and forestry, social circuit by increasing the number of jobs, maintaining traditional trades and setting up new green jobs to attract the population to practice various forms of tourism and ecotourism.

Research on international ecotourism mentioned that interest in "green" travel is at its highest level in 10 years; in the case of Romanian tourists, 20% are interested in green travel.

International ecotourism is a form of tourism with low impact on the environment in which it makes a conscious effort to reinvest some of the income to preserve and protect the environment, being considered a form of sustainable tourism and to ensure jobs and well-being of locals. Ecotourism is still a fairly narrow segment of the Romanian tourism market, so our country has a great potential for heritage ecotourism than recovery. Ecotourism in Romania faces many problems, it would be poor cooperation at local level, modest promotion at national and international level, it offers a limited and poorly diversified infrastructure in protected areas.

Currently, the characteristics of Romanian rural tourism defined by the World Tourism Organization in terms of location in rural areas remain ethnographic and geographical. Therefore, the construction of a new life cycle of the ecotourism product in a functional way for the conservation of rural infrastructure, the conservation of the rural way of life, the diversity of forms of presentation depending on rural and economic environments, can be achieved in good conditions as an innovation and revival. Romanian tourism because the Romanian village has preserved its history and geographical location, the specific Romanian cultural identity.

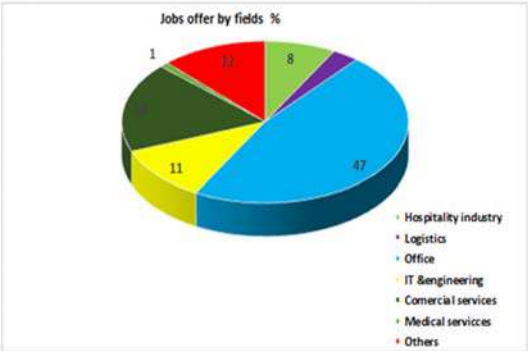
The statistical evidence at hand illustrates that the relative importance of the service sector in the national context has continued to grow in the last three decades, reflected in the growing share of this sector in both gross domestic product (figure 1) and active labour in most important national economies (figure 2).

Tourism in Romania focuses on the natural landscapes and its rich history, also having an important contribution to the country's economy. In 2006, domestic and international tourism provided 4.8% of GDP and about half a million jobs (5.8% of total jobs) (Country / Economy Profiles: Romania, Travel & Tourism. World Economic Forum. Accessed January 11, 2008).

After trade, tourism is the second most important branch of the services sector. Among Romania's economic sectors, tourism is dynamic and rapidly developing, being also characterized by a great potential for expansion. According to World Travel and Tourism Council estimates, Romania ranks 4th in the top of countries experiencing a rapid development of tourism, with an annual increase in tourism potential of 8% from 2007 to 2016.

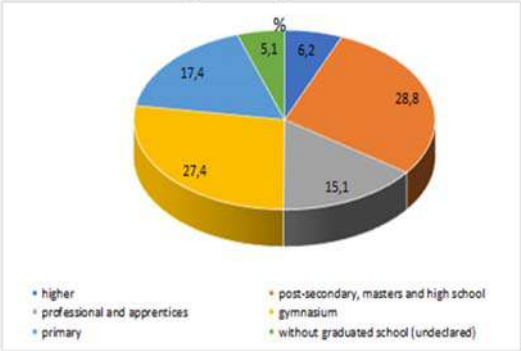
There are many travel agencies in Romania and other countries that bring foreign tourists. Also, Romanian and foreign tourists can make reservations at hotels, motels, boarding houses and other accommodation in the country and in other countries directly on specialized sites.

Figure no.1: Distribution of job offers in Romania



Source: (Data processing according to the Yearbook of the Romanian National Institute of Statistics)

Figure no.2: The distribution of the population aged 10-39 by training level

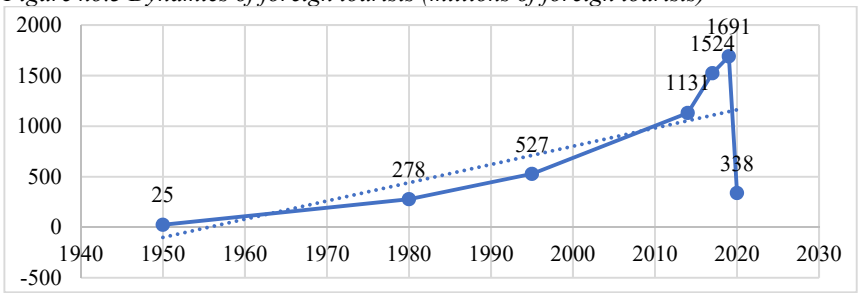


Source: (Data processing according to the Yearbook of the Romanian National Institute of Statistics)

In 2004, the number of foreign tourists was 3.6 million years, in 2019 the number of foreign tourists was 2.85 million. Regarding the number of foreign tourists worldwide, it is observed that the dynamics is increasing (figure no.3),except year 2020. The increase in the number of foreign tourists will also occur in Romania which will mean the increase of tourism's contribution to Romania's GDP, but also the increase of tourism jobs. The dynamics of jobs in tourism is observed to have had a decreasing trend in Romania from 2014 to 2019, precisely due to the emigration of Romanians to other European countries.

Statistical interpretation. The trend line obtained in the statistical correlation of the data in figure 2 is high school, so we obtained an inferior correlation. By applying the statistical correlation in the case of the evolution of jobs in tourism, was obtained due the tendency of grouping the estimated data, when all the points are grouped around a straight line (Figure 3).

Figure no.3 Dynamics of foreign tourists (millions of foreign tourists)

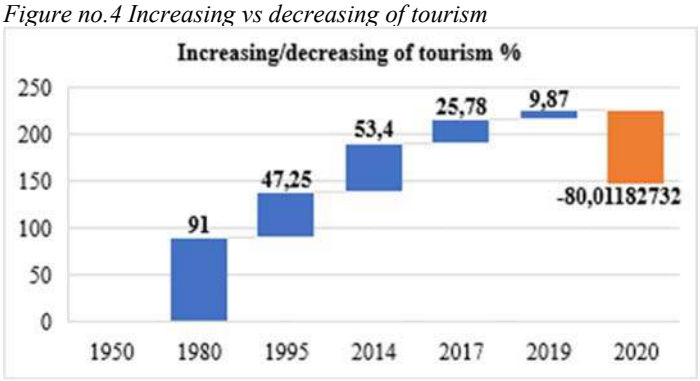


Source: (Data processing according to the Yearbook of the Romanian National Institute of Statistics)

The dynamics of tourism abroad in a long period of time shows us an increasing train that reaches a maximum in 2019, after which the hospitality industry decreases worryingly in 2020. The statistical interpretation of the data indicates the lower correlation (figure no.3). Thus, the most significant growth took place in 1980, then doubled in 1995 and again doubled compared to 1995 in 2014. Which means that the hospitality industry has seen a spectacular growth of almost 70 years. Unfortunately, the year 2020 brought a crisis in people's health, given a social crisis, implicitly economic that affected the hospitality industry. Decreasing the number of tourism almost to the level of 1980. This significant decline affected both hotel entrepreneurs and tourism workforce, and last but not least tourists. Therefore, the dynamics of foreign tourists has been growing dramatically since 1980, when it increased by 91% compared to the reference year 1950. So, the life cycle of tourism products is experiencing an unprecedented rise and development, which has attracted a lot by the services offered by the hotel industry, and which of course took into account the quality-price ratio in the case of tourist services offered to their customers. Then the increase was moderate at intervals of 10-15 years, from 47.25% to 25.78%. The flattening of

the growth trend was determined by the constantly innovated private life cycles that attracted more and more tourists. And in the period 2017-2019 the increase was only 9.87% which means that the life cycle of tourism products manifested itself in various innovative particulars, which already show the beginning of the decline of tourism products offered to consumers (Figure 4).

Figure no.4 Increasing vs decreasing of tourism



Source: (Data processing according to the Yearbook of the Romanian National Institute of Statistics)

In Romania, the dynamics of tourism is similar to an inflection in the period 1989-1995, when due to the fall of communism and the centralization of the hospitality industry, our country had to change its categories of foreign tourists, orienting itself in a period of only 6 years to a new tourism strategy that would attract foreign tourists from countries other than those that were part of the communist bloc: Poland, Czechoslovakia, Russia, Bulgaria, Democratic Germany, because these countries also had a tourist potential interested in traveling to countries other than from the communist bloc until 1989.

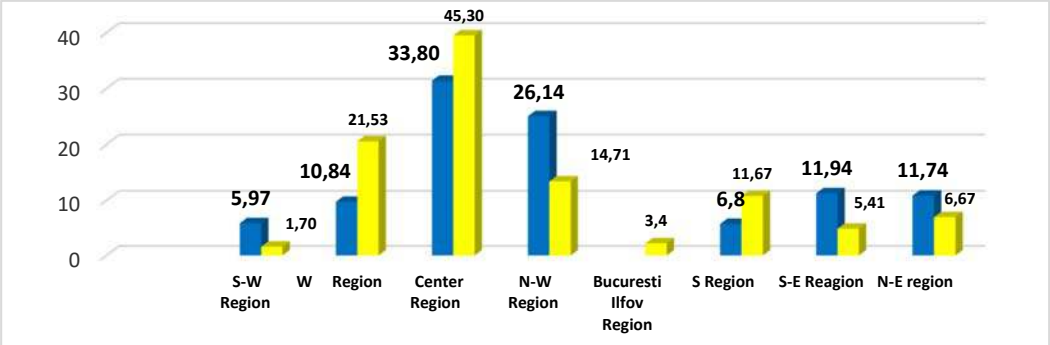
Thus, Romanian tourism has adopted new tourist products for Romanian and foreign tourists, with new life cycles, so they are in the launch period. As a result of this situation, the hospitality industry in Romania registered justified decreases in revenues from tourism, implicitly the turnover of newly established tourism companies could not be spectacular.

In conclusion, Romanian tourism is relaunching with an increasing trend starting with 1995. Then, tourism entrepreneurs understood that tourism investments can be their chance for medium and long term development. That is why in their business development strategy they accessed non-reimbursable European funds from 1996 to 2015, when they built a significant number of accommodation structures, thus improving the tourism infrastructure for both Black Sea coastal tourism, but more chosen mountain tourism. Most investments from PHARE, POSDRU, PNDR, POR financing were completed with the construction of rural tourist pensions. They allowed the development of rural tourism in Romania, also offering new tourist services, with life cycles of local rural tourism products, ecological and local tourist products. The local tourist products with Romanian ethnographic specifics were extremely appreciated in the period before 1989 by foreign tourists. That is why the quality-price ratio of the tourist services was one that attracted a large number of international tourists in Romania.

Today, the variants of practicing tourism have changed significantly, and the tourist services have developed in the field of professional fields, conferences, events, workshops, along with which new opportunities have appeared for spending free time or holidays, such as be: tourism in protected natural areas, diversification of the offer and improvement of ecotourism services, tourist services that protect the environment, respect local culture and traditions, tourist activities that want to expand the level of knowledge, understanding and appreciation, educational holidays that enrich their existence tourists, as well as tourist services for the generation of Y12 Millennial, with outdoor activities, offering good potential for the future development of some forms of adventure tourism.

The Gaussian curve of the urban accommodation structures in Romania from 2020 reaches a higher level than the maximum level of the accommodation structures in the rural area. This indicates the limitation of accommodation possibilities for ecological tourism that is prefigured with new tourist products, especially after the pandemic(figure 5).

Figure no.5 Percentage of accommodation structures rural vs urban localities, % in 2020 from Romania



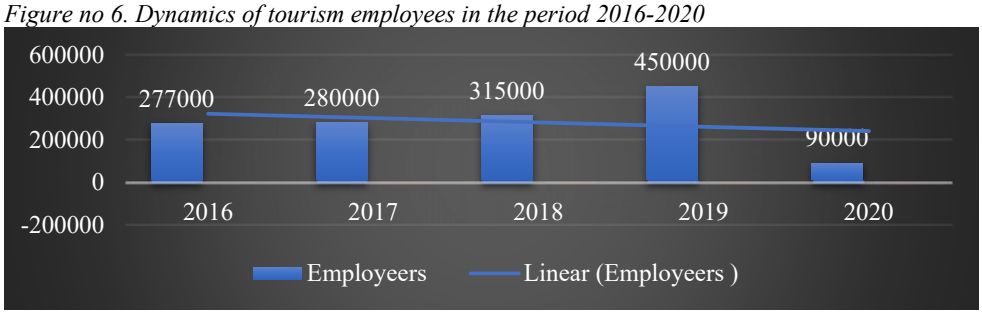
Source: (Data processing according to the Yearbook of the Romanian National Institute of Statistics)

Analyzing the offer of tourist services in Romania, we will find that the highest density of services offered to tourists is concentrated in the North-West Region, the Center Region and in the North-East Region. Leisure, sports, entertainment, adventure parks, horse riding, hiking and medieval, cultural and speleological clubs offer recreational comfort through holiday destinations, representing a nonconformist trend very popular with tourists in Romania.

Today, the impact of ecotourism services in Romanian tourism is reflected with the highest density in the Central Region and the North-West Region, with an average density in the North-East and South-East Region. In the other Regions, ecotourism services are present in a minimal share compared to the Central Region and the North-East Region.

The number of jobs in the hotel industry increased considerably from 2016 to 2019. Therefore, the attractiveness of tourism jobs decreased during the same period and the unemployment rate in Romania, the hospitality industry sector holding a share of 8% in the category of Romanian jobs. (figure no.6).

Figure no 6. Dynamics of tourism employees in the period 2016-2020



Source: (Data processing according to the Yearbook of the Romanian National Institute of Statistics)

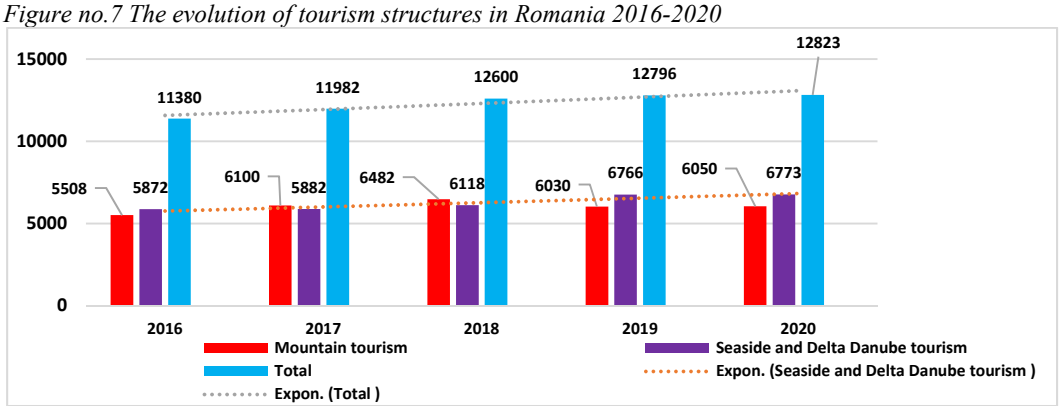
The considerable regression of the Romanian tourism jobs registered in 2020, makes the new situation of the labour market to immediately require an adaptation of the tourism labour force, consequently the investment in the training of the tourism labour force foreshadows a justified one of the situation of social and economic crisis, implicitly financial, when Romania has to adapt to new trends.

That is why the foreshadowing of green jobs, new jobs for the ecotourism niche is a favourable solution for reviving the hospitality industry.

The increase in the number of jobs in tourism figure no.6 indicates in the histogram obtained that from a statistical point of view the distribution of grouped data were shown by displaying the relative proportion of each factor to the total, by highlighting the most significant factors. Thus, a negative regression was obtained when applying the statistical correlation of the data.

The dynamics of tourism structures in Romania in the period 2016-2020 does not change significantly, but has an increasing trend from 2016 to 2019, while in 2020 there is a stagnation of investments and entrepreneurship in tourism (figure 7).

Figure no.7 The evolution of tourism structures in Romania 2016-2020

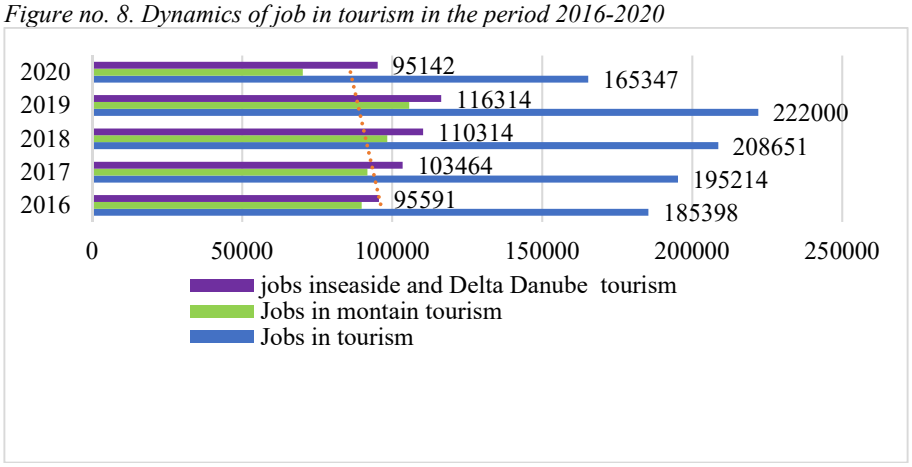


Source: (Data processing according to the Yearbook of the Romanian National Institute of Statistics)

The dynamics of jobs in tourism in the period 2016-2020 shows an increasing train until 2019, after which a slight decrease of jobs in 2020. The statistical interpretation of the data indicates the superior linear correlation of the data (figure 8). Although the number of jobs decreased in 2020, the dramatic decrease in the number of tourists was not directly proportional to the decrease in the number of jobs, because the hospitality industry waited for the elimination of the day-to-day crisis situation.

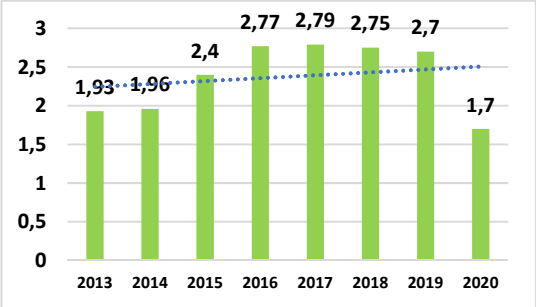
From the study we find that the hospitality industry has a significant contribution to Romania's GDP, tourist services ranking second after trade services (Figure 9, 10).

Figure no. 8. Dynamics of job in tourism in the period 2016-2020



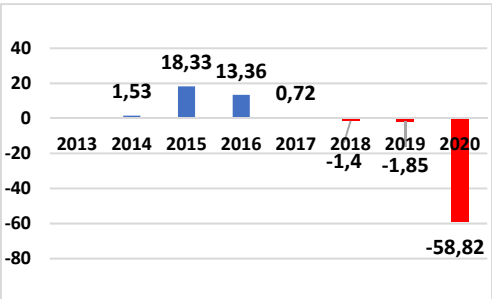
Source: (Data processing according to the Yearbook of the Romanian National Institute of Statistics)

Figure no.9 The contribution of tourism to Romania's GDP 2013-2025, %



Source: (Data processing according to the Yearbook of the Romanian National Institute of Statistics)

Figure no.10: Increasing vs decreasing of the contribution tourism to Romania's GDP 2013-2020,%



Source: (Data processing according to the Yearbook of the Romanian National Institute of Statistics)

So that, we can say that the concern for tourism and jobs in tourism that justifies the labour costs of today.

5. Conclusions

1. The study was conducted by analysing the evolution of Romanian population training, the trend of the labour market, which from a statistical point of view is decreasing.

2. Realization of seasonal campuses representing places of residence for workers in the hospitality industry and ecotourism for green jobs.

3. The financial support of the human resource on contractual terms of training and seasonal work activities depending on the moment when the job market demands it.

4.There is an increasing trend of accommodation capacity, both nationally and in mountainous areas, but also in the Danube Delta area. Hence the need to develop agreement activities.

5. The professional training of tourism workers will have to remain a priority of each entrepreneur because it is a great interest for the attraction in the tourism sector, of the people who have activated external labour markets and have acquired knowledge and capital necessary for the development of tourism activities.

6. If we talk about **The investment in labour: a good or bad phenomenon?** - we can say that in the case of the hospitality industry the estimated economic results can be spectacular if Romania will be invest in training of labour for new green jobs and green business.

7. Updating the Master Plan for Public Investment in Tourism, taking into account consumption trends in the global travel industry, as well as sustainability practices and adaptation to climate change, and putting into public debate an updated draft, carried out in partnership with the private environment in industry, covering a budget interval of 5 years.

8. Are necessary the educational grants to entrepreneurs and educational scholarships for employees in the hospitality industry who have lost their jobs due to the crisis. Allocation of a percentage of the salary fund of tourism companies to support education in tourism starting with 2021. Adapting COR to new occupations specific to tourism and recovering a part of the repatriated workforce with qualifications in different fields of the hospitality industry.

9. Digitization for the promotion of Romanian tourism and the establishment of a mandatory reporting system in relation to the authorities. Establishing the innovation and entrepreneurship ecosystem for tourism. We notice that we have many advantages in the conditions of the positive trend of the hospitality industry, but there is also the disadvantage of multiple actions and measures to achieve the objectives.

10. Romanian tourism will need by new tourist services which will develop in the field of professional fields, conferences, events, workshops, along with which new opportunities have appeared for spending free time or holidays.

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Impact of the Soluble and Insoluble Fibers on the Human's Health

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Abstract

The scientific research show that some of the dietary fiber has a structural role in its plant sources, being insoluble in water. These are cellulose, hemicelluloses and lignin, and are found especially in green bean peas. Another part of the food fiber has a repairing role and are soluble in water (Mogoș, V.T., 1999, p.106). In this experiment we monitored the fiber and minerals from vegetables.

From the analysis performed on 12 vegetables (potatoes, cauliflower, broccoli, cabbage, tomatoes, cucumbers, red peppers, peppers, celery, parsley, peas, green beans) it was quoted that Na varies between 2 mg / 100g for peppers red up to 130 mg / 100g for celery, K ranges from 170 mg / 100g for cucumber to 900 mg/100g for parsnip. Like Mg, which are essential for good bone and heart health, they have significant limits of 300 mg/100g for parsnip and 70-75 mg/100g for cabbage and broccoli.

Key words: fiber, mineral, vegetables, digestibility
J.E.L. classification: M31

1. Introduction

The food fibers are polysaccharides of vegetable origin that may soluble or insoluble. An important part of the food fiber has a repairing role and are soluble in water. This category includes pectin, gums, mucilage and hemicelluloses. However, some people with various medical problems are recommended to have a low fiber diet for a certain period of time. Dietary fiber diet is effective for digestive tract irritation. Such a diet is beneficial in treatments for: abdominal cramps - ulcerative colitis - intestinal blockage - after surgery on the digestive tract. At the same time we studied the capacity of some vegetables such as: potatoes, cauliflower, broccoli, cabbage, tomatoes, cucumber, red pepper, peppers, celery, carrot, parsnip, green beans, beans.

A large number of food substances show anticancer properties. They include: food fiber, vitamins A, C, D, E, selenium, calcium, zinc, isothiocyanates, flavones, phenols, protease inhibitors, some amino acids. Food fibers are polysaccharides of vegetables origin that are not digested in the small intestine. That's why some degraded in the colon. Thus when dietary fiber absorbs water from the stomach, it makes us feel full, and thanks to this feeling of satiety, we eat less. here is the explanation for which recommending a healthy lifestyle is to consume at least two liters of water a day.

Every day you consume boiled or steamed vegetables and fruits by 30%. the rest of ideal quality consists of fresh and preserved fruits in sugar (https://academic.oup.com/nutritionreviews/article-abstract/67/4/188/1901012-Optimal nutrition for the consumer´s health.ro).

2. Theoretical background

The first category of insoluble dietary fiber favors intestinal peristalsis and occur in fecal bowel formation. The second category of soluble food fibers forms gels that sequester some of the substances present in the intestinal lumen. Both categories of fiber interfere with different mechanisms of anticancer protection, reducing the carcinogenic risk (Mogos, V.T., 1999, p. 106).

In this regard, we have identified a lot of vegetables as possible with high frequency in daily food consumption. We determined the amount of soluble food fibers, non-cellulosic polysaccharides - gums, mucilage, pectin, hemicelluloses and the amount of insoluble cellulose-cellulose polysaccharides - cellulose and lignin. Hydrophilic water retention capacity. Food fibers retain water by absorption, absorption, and to a lesser extent on the outer surface of the fiber matrix (free water). Among the factors that influence the ability of water retaining fibers, the most important are: the particle size and shape, as well as the composition and structure of the food fibers. Water retaining capacity for food fibers has values ranging from 2 to 8 g water /1 g fiber. (https://www.hindawi.com/journals/jchem/2017/9340427/abs/ Importance of food fiber, /Scientific Journal, Romania).

3. Research methodology

In the experimental study it followed the hydration of the total and insoluble fiber from various vegetable we eat in the daily diet, which are considered as basic food for the consumers. At the same time we investigated the behavior of hydrated fiber at different time intervals: after 6 hours, 12 hours and 24 hours. depending on the degree of hydration of the food fiber, the specific particle absorption surface increases, there by accelerating the intestinal transit. It is found that the beans (100%), the green beans, the peas, the tomatoes and the cauliflower (68% over 68%) have a very good absorption capacity on the fiber. It can be said that the digestibility of these vegetables is also higher than other vegetables because the surface formed by the food bowl particles increases by the absorption of water.

Also, it is found that after 24 hours the pH values have decreased, which means the occurrence of fermentative phenomena. This affects the digestibility of the food because the alcoholic fermentation produces carbonic acid, which can cause the discomfort, disrupting the normal and efficient functioning of the digestive tract.

During the experiment we studied some vegetables such as: potatoes, cauliflower, broccoli, cabbage, tomatoes, cucumber, red pepper, peppers, celery, parsnip, green peas, green beans.

The absorption capacity of organic substances is very important for technological process when the food fibers are used as a support for different flavors.

the fermentable capacity of fiber it refers to their susceptibility to degradation in the colon by the action of fermentation bacteria. This property is important in terms of nutrition and less technologically.

Methods for determination of soluble, insoluble and total fibre content (gravimetric method)

Generally, fibre means plant material that resists the attack of digestive enzymes. This includes non-starch polyglucide, lignin and their associated substances.

After solubility in hot water, dietary fibre is divided into soluble fibre and insoluble fibre.

The principle of the method. Successive enzymatic hydrolysis of the sample with thermostable ά-amylase, protease and amylo-glucosidase for the removal of digestible material (starch, proteins), followed by precipitation of polyglucide from fibre. The residue obtained is dried and weighed, and its mass is corrected for the protein and ash content.

Equipment. For use, the crucibles are prepared as follows: calcined overnight at 495 ºC, Celita and ash are removed by vacuum, then immersed in Micro 2% washing solution for 1 hour. Rinse with water and ionized water and finally with 15 ml of acetone and air dry. Place about 1 g of Celite in the dry crucibles (to facilitate filtration) and then dry at 130 ° C until a constant mass. Cool for an hour and weigh. Fried crucibles (Buchner), filter vessel, with resistant walls, with a

useful volume of 1l, sealed with a rubber gasket; pressure source (vacuum): vacuum pump or vacuum cleaner capable of regulating the created depression; large capacity vibrating water bath (20-24 l) with lid, thermo regulable; balance, with a weighing accuracy of 0,1 mg; calcination furnace; oven, one set at 103 ° C and another at 130 ° C; PH-meter Testo 205.

Reagents. Ethanol 95% (v / v), ethanol solution 78% (v / v). Place 207 ml of water in a 1 l graduated flask and add 95% ethanol to the mark, acetone; enzymes: thermostable alpha-amylase (sigma a5426 or equivalent); protease (sigma P3910 or equivalent. Prepare a solution of concentration 50 mg / ml in fresh MES / TRIS buffer; amylo-glucosidase (AMG-Sigma A9913 or equivalent), deionized water; celite, acid washed, calcined (sigma C8656); Washing machine Micro 2% in deionized water, MES / TRIS buffer, 0.5 m each, pH 8.2 at 24 ° C. Dissolve 19.52 g of 2 (N-morpholino) ethanol sulphonic acid (MES) (Sigma M8250) and 14 , 2 tris (hydroxymethyl) aminomethane (TRIS) (Sigma T1503) in 1,7 l deionized water, adjust the pH to 8,2 with 0,6 n sodium hydroxide solution, dilute to 2 l with water. important to adjust the pH of the buffer solution to about 8,3 at 20 ° C and 8,1 to 27-28 ° C, hydrochloric acid, 0,561n solution Add 93,5 ml of 6n HCl to about 700 ml of water in a flask rated at 1l pH standards Buffer solutions 4,0, 7,0, 10,0.

Samples preparation. The fibre content is determined from the dry matter of the sample. For this, the sample is dried in an oven at 70 ºC. Depending on the initial mass, before drying and the final mass, after drying and cooling in the desiccator, the humidity of the sample is calculated. The dry sample is then ground so that it passes through a 0.3-0.5 mm mesh sieve. The dried and ground sample is kept in closed jars, in a desiccator, until the analysis begins.

Working method. 1. Enzymatic hydrolysis of non-fibre components. Weigh, in two 400 ml jars, 1 g of the sample to be analysed, to the nearest 0,005 g. Add 40 ml of the MES-TRIS buffer mixture (pH 8.2) to each flask, then insert a magnetic stirring rod and homogenize with a magnetic stirrer until the sample is completely dispersed. The purpose of homogenization is to facilitate the access of enzymes to samples. Continuing the homogenization (at low speed) we proceed to the thermo stating with alpha-amylase. For this purpose, 200 µl of thermostable alpha-amylase solution is added to each flask, the flasks are covered with aluminium foil and then they are introduced in the vibrating water bath at a temperature of 95 ... 100ºC, where they are kept for 35 min. The timing starts from the moment the balloons are introduced into the hot water bath. Sample balloons are cooled to 60ºC, the optimum temperature for the protease. A new thermostat takes place in the presence of the protease. To do this, add 100 µl of protease solution to each flask, cover with aluminium foil and place in a vibrating water bath heated to 60 ± 1 ° C, where it is kept for 30 minutes. Timing starts when the water bath temperature reaches 60ºC. Remove the flasks from the water bath and adjust the pH of the samples, aiming to bring values of 4.1-4.8 pH optimal for amylo-glucosidase activity. For this purpose, continuing stirring, add 5 ml of 0,561n hydrochloric acid solution to each sample. Check the pH, which should be 4.1-4.8. If necessary, adjust the pH by adding 5% sodium hydroxide solution or 5% hydrochloric acid solution. Once the optimal conditions of temperature 60ºC and pH (4.1 ... 4.8) for amylo-glucosidad are created, a third thermostat follows in the presence of this enzyme. For this, 300 µ amylo-glucosidase solution is added to the two flasks, while stirring is continued with the magnetic rod. Cover with aluminium foil and place in a vibrating water bath at 60 ° C for 30 minutes for enzymatic hydrolysis. The timing starts when the temperature in the water bath reaches 60ºC. With the samples thus prepared, the fibre are determined (Bordei, D., 2007).

Determination of insoluble fibres (IDF)

The previously obtained enzymatic hydrolysate is filtered. Filtration is done by crucible in a filter vessel for the two parallel samples. For filtration, crucibles containing Celite are weighed to the nearest 0,1 mg. Moisten the Celite layer with 3 ml of distilled water and then absorb the crucibles to bring the Celite closer to the crucibles. Wash the flasks in which the enzymatic hydrolysis was done with water, pass the wash water through the crucible, wash the two residues twice with 10 ml of distilled water preheated to 70°C. The filter residues are used for insoluble fibre (IDF) dosing. The mass of the two residues, R1 AND R2, is calculated, subtracting from the weightings made (residue + crucible with Celite) the country of the crucibles with Celite. In order to correct the fibre content, the incomplete hydrolysis of the proteins and the ash content of the

analysed sample shall be taken into account. For this purpose, one of the residues obtained, (R1) is analysed for protein and the second (R2) for ash. The protein analysis consists in determining the protein content by the Kjeldahl method of the R1 residue, and the ash analysis consists in calcining the R2 residue at 495°C.

Determination of soluble fibre (SDF)

The filtrates obtained are used to determine the insoluble fibres, which have been collected in 600 ml flasks, previously calibrated. These filters contain soluble fibres. The two filtrates are weighed, after which the soluble fibres are precipitated with 95% ethanol. For this, the filtrates are treated with 4 volumes of 95% ethanol preheated to 60°C relative to the mass of the filtrates. Allow to precipitate at room temperature for 60 minutes, then filter through a crucible. For filtration, the crucibles containing Celite are weighed to the nearest 0,1 mg, the celite layer is moistened with 15 ml of 78% ethanol, after which the crucibles are superimposed on an absorption to bring Celita as close to the crucible as possible. Filter, wash the two flasks with 78% ethanol to transfer quantitatively to the precipitate in crucibles. The mass of the residues (R1 and R2) is obtained by subtracting the crucible with Celite.

To correct the fibre content taking into account the incomplete hydrolysis of the P proteins and the ash content of sample A, after weighing, the protein content in the R1 residue is determined by the Kjeldahl method and the ash content in the R2 residue is determined by calcination at 495 ° C.

Determination of total fibre (TDF)

In the enzymatic hydrolysate obtained, the food fibre are precipitated with ethanol. For this purpose, 225 ml of 95% preheated ethanol at 60 ° C are added to each of the two hydrolysates (samples). The ratio of the volume of ethanol to the volume of the sample must be 4: 1. Cover the samples with aluminium foil, allow to precipitate at room temperature for 60 minutes, then filter. Celite crucibles are used. Filter, wash the flasks in which the precipitates were formed with 78% ethanol to quantitatively pass their contents into the crucibles, then using the vacuum, the residues are washed successively twice with 15 ml of the solutions: ethanol 78%, ethanol 95 %, acetone. The residues thus obtained are dried overnight in the oven at 103 ° C, cooled in the desiccator for about one hour and weighed. The mass of the residues (R1 and R2) is calculated by subtracting the country of the Celite crucibles. In order to correct the total fibre content, the incomplete hydrolysis (with protease) of the proteins and the ash content of the sample shall be taken into account. For this, in the residue R1 the proteins are determined according to the Kjeldahl method, and in the residue R2 the ash is determined, by calcination. In parallel with the analysis of the fibre content of the sample to be analysed, two control samples are made to observe the contribution of the reagents on the residues. The same procedure is followed with the difference that instead of 1 g of sample, 1 ml of distilled water is taken.

Calculation and expression of results. The soluble, insoluble and total fibre content is expressed as a percentage of the sample analysed. Regardless of the type of fibre determined by the ironing using the relation:

$$Fibre\ \% = \frac{\frac{R_1 + R_2}{2} - P - A - RM}{\frac{m_1 + m_2}{2}} * 100$$

R1 - mass of residue obtained from m1, g; R2 - mass of residue obtained in m2, g; m1 - mass of sample 1; m2- mass of sample 2; P- mass of protein in the residue R1, g; A- mass of g in residue R2: RM- residue of the control sample = 0 (Bordei, D., 2007).

Determination of free calcium content. Calcium ions initially react with murexid, used as an indicator, with which they form a complex combination of purple-red colour. By titration with EDTA, murexide is removed from the complex combination, and EDTA reacts with calcium ions to form the Ca-EDTA complex. The end of the reaction is indicated by the change, in the alkaline environment, of the colour of the indicator from red-purple (the colour of the Ca-murexid complex) to purple (the characteristic colour of the free murexid).

Reagents. Sodium hydroxide, 1n solution; murexid, granules; EDTA (sodium salt of ethylenediaminetetraacetic acid), solution. Dissolve 3.722 g of crystallized disodium EDTA in 800 ml of water. Add 0.86 g of NaOH and dissolve everything by diluting to 1000 ml. The solution is standardized against another solution of a calcium salt which is prepared by dissolving 1.2486 sodium carbonate in a minimum amount of 5n HCl and diluting to 500 ml of double-distilled water. 1ml of this solution contains 1mg of calcium.

Working method. Weigh 3 g of the sample, mix with 25 ml of distilled water, shake well and leave to stand for 15 to 20 minutes to dissolve the free calcium. Filter on filter paper and through a Gooch filter to the water tube. The filtrate obtained is made up to 50 ml in a volumetric flask with distilled water. From this volume take 20 ml, bring to a pH higher than 12 (at this pH the magnesium precipitates) by adding 1n NaOH solution, about 1 ml, checked with pH indicator paper. Extract 10 ml with a pipette and place in a 100 ml conical flask, add with a spatula, 0,2 g of murexide and titrate with a 0,01 m solution of EDTA until purple turns.

Calculation and expression of results. The free calcium content is expressed in mg per 100 g of sample and is calculated by the relation:

$$Calcium\ free\ \left(\frac{mg}{100g}\right) = \frac{100}{m} * \frac{V_1 * V_2 * V_4}{F * V_3 * V_t} * 10^{-2} * 40 * \frac{M_1}{M_2} * T$$

In which: m-mass of the sample taken into analysis, g; V1- volume of distilled water used for the solubilization of free salts, ml (V1 = 25 ml); F- volume of the filtrate obtained, ml; V2- volume of the solution to which the filtrate is initially brought, ml (V2 = 50 ml) V3- volume of solution to be used for titration, ml (V3 = 20 ml) V4- volume of solution brought to pH greater than 10 ml (V4 = 22 ml), Vt- effective volume of the solution to be analysed, used for titration, ml (Vt = 10 ml, 40-molecular mass of calcium g / mol;M1- concentration of EDTA titration solution of 2 * 10^{-2}m; M2-concentration of the EDTA titration solution used in the analysis, (0.01m);T- volume of 0.01 m EDTA solution used for calcium titration in the presence of murexid, ml. (Bordei, D., 2007)

The volumes of EDTA used for titration were; T1 = 0.3 ml, T2 = 0.18 ml, T3 = 2.14 ml, T4 = 0.39 ml, T5 = 0.06 ml, T6 = 0.07 ml, T7 = 0.16 ml, T8 = 0.11 ml, T9 = 0.51 ml, T10 = 0.5 ml, T11 = 0.18 ml, T 12 = 0.06 ml, and the Ca content calculated for the 12 samples was Ca green beans = 39.2 mg, Ca peas = 25.2 mg, Ca parsley = 299.6 mg, Ca celery = 54.6 mg, Ca peppers = 8.4 mg, Ca red pepper = 9.8 mg, Ca cucumber = 22.4 mg, Ca tomato = 15.4 mg, Ca cabbage = 71.4 mg, Ca broccoli = 70 mg, Ca cauliflower = 25.2 mg, Ca potatoes = 8.4 mg.

Determination of free magnesium content

The principle of the method. Magnesium ions form a complex combination with EDTA. An extra drop of EDTA solution gives eriochrome T a blue color.

Reagents. Ammonia buffer solution. Mixture in 3:17 ratio of 0.2m ammonium hydroxide solution and 0.2m ammonium chloride solution; eriochrome black T, solid mixture (one part indicator + 500 parts NaCl or NaNO3); EDTA solution 0.01m.

Working method. Weigh 3 g of the sample, mix with 25 ml of distilled water, shake well and leave to stand for 15 to 20 minutes for magnesium extraction. Filter on filter paper and through a Gooch filter to the vacuum tube with water. The filtrate obtained is brought to 50 ml in a volumetric flask with distilled water. From this volume 20 ml are taken, it is brought to a pH higher than 10 by the addition of ammonia buffer (NH3, 1m + NH4Cl 0.2m in ratio 3:17) approximately 2ml, checking with pH indicator paper. Extract 10 ml with a pipette and place in a 100 ml conical flask, add approximately 0,3 g of solid eriochrome T indicator black mixture until the solution turns red and titrate with 0,01 m EDTA solution until turning the color to blue.

Calculation and expression of results. The magnesium content is expressed in mg per 100 g of product. In the calculation it is taken into account that on titration, EDTA reacts with Ca ions. The relation is used:

$$Magnesium\ free\ (mg/100g) = \frac{100}{m} * \frac{V_1 * V_2 * V_4}{F * V_3 * V_t} * 10^{-2} * 24 * \frac{M_1}{M_2} * (T' - T)$$

in which: m-mass of the sample taken into analysis, g; V1- volume of distilled water used for the solubilization of free salts, ml (V1 = 25 ml); F- volume of the filtrate obtained, ml; V2- volume of the solution to which the filtrate is initially brought, ml (V2 = 50 ml) V3- volume of solution to be used for titration, ml (V2 = 20 ml) V4- volume of solution brought to pH greater than 10 ml (V4 =

22 ml)Vt- effective volume of the solution to be analysed, used for titration, ml (Vt = 10 ml), 24 - molecular mass of magnesium g / mol; M1- EDTA titration solution concentration OF 2 * 10 ^ (-2) m; M2- concentration of the EDTA titration solution used in the analysis, (0.01m); T'- volume of 0.01 m EDTA solution used for calcium titration in the presence of murexid, ml. T- volume of EDTA solution used for titration of magnesium in the presence of eriochrome black T, ml. The volumes of EDTA 0.02 m used for titration were: T1 = 0.3 ml, T2 = 0.18 ml, T3 = 2.14 ml, T4 = 0.39 ml, T5 = 0.06 ml, T6 = 0.07 ml, T7 = 0.16 ml, T8 = 0.11 ml, T9 = 0.51 ml, T10 = 0.5 ml, T11 = 0.18 ml, T 12 = 0.06 m and the volumes of EDTA 0.01 m T'1 = 0,7 ml, T'2 = 0,65 ml, T'3 = 2,72 ml, T'4 = 0,73 ml, T'5 = 0,2 ml, T'6 = 0,21 ml, T'7 = 0,26 ml, T '8 = 0,24 ml, T'9 = 1,3 ml, T'10 = 1,35 ml, T'11 = 0,37 ml, T'12 = 0,37 ml.

In the experimental study we followed the hydration of the total and insoluble fiber from the various food. At the same time we investigated the affinity of fiber hydrated at different time intervals: after 6 hours, 12 hours and 24 hours. Depending on the degree of hydration of the food fiber, the specific particle absorption surface increases, thereby accelerating the intestinal transit. the pH measurements for the suspensions obtained were made with a pH meter TESTO 204. in terms of optimal digestibility of food and, implicitly, digestive comfort can also be appreciated by the level of fermentation of consumed food. That is why we have experimentally followed the degree of fermentability of vegetables and fruits containing glucose, fructose, invert sugar, as well as other more or less soluble polyglucide from the category of food fiber. Then we determined inverted sugar and glucose after 6 hours and 12 hours using the Schoorl method.

Determination of iron content. Spectrophotometric method. Extraction of iron from the hot sample in the presence of chloric hydroxylamine and its reaction Fe(2+) with di sulfonic bathophenanthroline with which it forms a coloured compound, the absorbance of which is measured spectrophotometrically.

Equipment. Spectrophotometer, water bath.

Reagents. Extraction solution. An amount of 50 g of hydroxylamine hydrochloride is dissolved in an amount of water. Add 100 ml of concentrated hydrochloric acid and 100 g of trichloroacetic acid, stir and make up to 1000 ml with water; chromogenic solution. 300 mg bathophenanthroline di sulfonic acid (BPDS) is dissolved in 10… 15 ml of water in a 1000 ml volumetric flask. Add to the mark with 3m sodium acetate solution. Store in dark bottles. iron stock solution, containing 1000 µg Fe / ml in 1% HCl (Sigma chemicals), standard iron solution. Dilute 1 ml of iron stock solution with extraction solution to 100 ml (10µg Fe / ml).

Working method. The sample, weighing 1 g, weighed to the nearest 0,1 mg, was placed in a test tube (16x100 mm), 10 ml of extraction solution was added and stirred. Close the tube with a stopper and shake vigorously. Remove the stopper and weigh the tube by noting its mass. The tube is then placed in a boiling water bath for 15 minutes, after which it is cooled to room temperature by placing it in a cooling vessel for 15 minutes. After cooling, wipe with a dry cloth and weigh again. It is brought to the initial table by adding water. Close the tube with a stopper and shake. Filter in a clean, dry tube through Whatman paper no. 1001. Take 1 ml of the filtrate, place in another tube, add 3 ml of chromogenic solution, mix, leave to stand at room temperature for 15 minutes, then read the absorbance on the spectrophotometer at 535 nm. In parallel, a control sample is made, adding to 1 ml of filtrate of the analysed sample, 3 ml of 3 m solution of sodium acetate (without chromogenic solution). The absorbance of the control sample is subtracted from the absorbance determined spectrophotometrically of the analysed sample.

Standard curve. The concentrations of: 0, 1, 2, 3, 4, 5, 8, 10 µg Fe / ml are taken. For this we take 0, 0,1; 0.2; 0.3; 0.4; 0.5; 0.6; 0.8; 1.0 ml of standard iron solution (10µg Fe / ml) is made up to 1 ml with extraction solution. The mixtures are placed in tubes, 3 ml of chromogenic solution are added each, homogenised, allowed to stand at room temperature for 15 minutes and then the absorbance on the spectrophotometer at 535 nm is read.

In the standard curve, in the abscissa, pass the quantities of iron (0, 1, 2, 3, 4, 5, 10µg and in the abscissa the absorbance.

Calculation and expression of results. The iron content is expressed in mg / kg product or in mg / g product. Depending on the absorbance of the analysed sample, the corresponding iron content is read from the standard curve. The relation is used:

$$Fe\left(\frac{mg}{kg}\right) = \frac{C * d}{10^3} * 1000$$

In which: C- the amount of iron extracted from the standard curve, µg; d-dilution performed (d = 10); 10^3- transforming factor of µg in mg; or with the data obtained for the standard curve, a regression relation is established in which one enters with the absorbance read at the spectrophotometer for the analysed sample and its iron content is obtained (bordei, D., 2007).

The results obtained for the studied vegetable samples were: sample 1-beans verve -C1 = 0.1, sample 2-peas C2 = 0.5, sample 3-parsley C3 = 0.6, sample 4-celery C4 = 0.1, sample 5-peppers C5 = 0.07, sample 6-red pepper C6 = 0.08, sample 7-cucumber C7 = 0.03, sample 8-tomato C8 = 0.06, sample 9-cabbage C9 = 0.15, sample10-broccoli C10 = 0.2, sample11-canopy C11 = 0.1, sample12 potatoes - C12 = 0.1.

The results were: Fe1= 0.1x10=1mg, Fe2=0.5x10=2mg, Fe3=0.6x10=6mg, Fe4=0.1x10=1mg, Fe5=0.07x10=0.7mg,Fe6=0.08x10=0.8mg,Fe7=0.03x10=0.3mg,Fe8=0.06x10=0.6mg, Fe9=0.15x10=1.5mg , Fe10=0.2x10=2mg , Fe11=0.1x10=1 mg , Fe12=0.1x10=1 mg.

$$Cu\left(\frac{mg}{kg}\right) = \frac{Cx\ Vx\ 1000}{mxV1x\ 10^3}$$

The results for Cu were: Cu 1= 0.6x2 =1.2 mg, Cu 2=0.125x2=0.25 mg, Cu 7=0.03 x 2 =0.06 mg, Cu 8= 0.05x2= 0.1 mg, Cu 9= 0.75 x2 = 1.5 mg, Cu 10 = 0.5 x 2= 1.0 mg, Cu 11=0.07 x 2 = 0.14, Cu 12=0.08 x2 =0.16 mg. For sample 3,4,5,6 the results were zero.

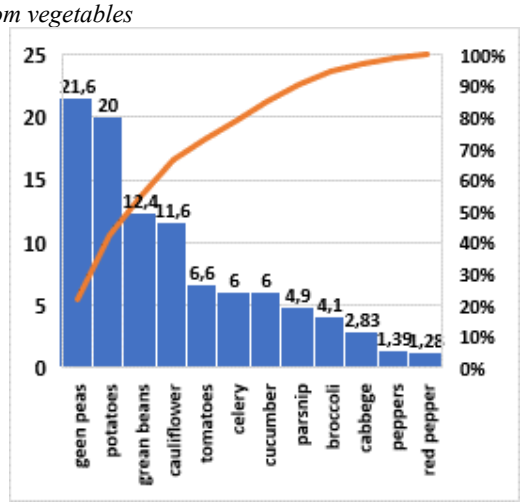
4. Findings

Our experiments are showing that the vegetables used daily in the diet of consumers can bring both benefits and disadvantages to human nutrition.

The highest fiber content was at potatoes (20%), then peas (21.6%), 11.6-12.4% for cauliflower and green beans. Between 4.1-8.9% fiber are ranging broccoli, tomatoes, celery, carrot, beans. The smallest fiber content recorded for the red pepper and the peppers (1,3-1,4%) (figure 1). It is found that the beans (100%), the green beans (100%), the peas (97%), the tomatoes (71%) and the cauliflower (over 68%) have a very good absorption capacity on the fiber.

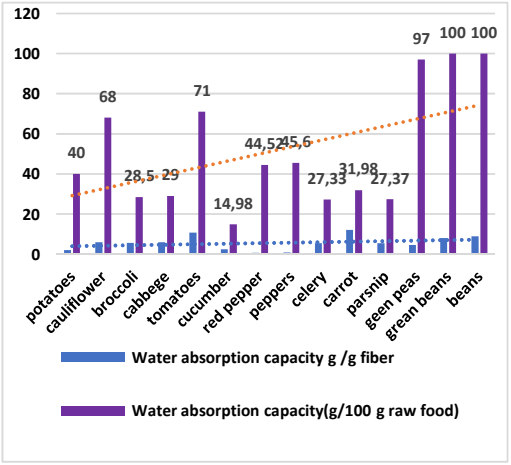
It can be said that the digestibility of these vegetables is also higher than other vegetables because the surface formed by the food bowl particles increases by the absorption of water, and the action of gastric acid expands at the same time, thus reducing the digestion time of the food (figure 2).

Figure no. 1 The fiber percent of gross weight from vegetables



Source: (own contribution)

Figure no 2. The water absorption capacity of fiber from vegetables

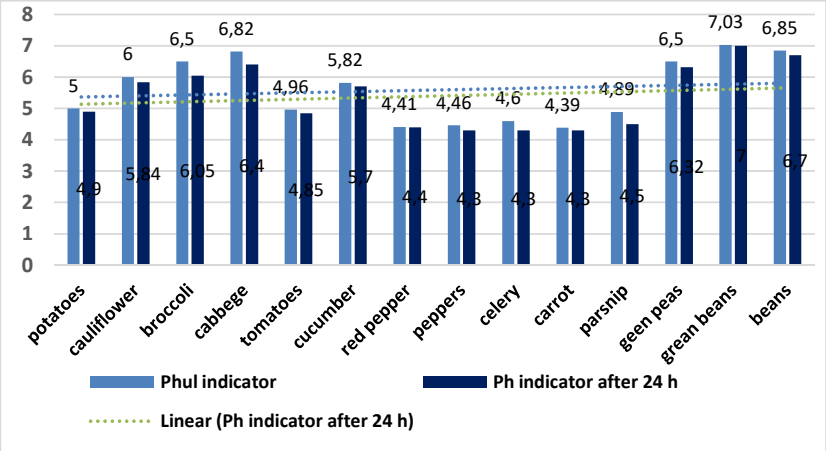


Source: (own contribution)

Considering the choice of the healthiest vegetables for the consumer, one can say that they are the best for an accelerated digestion. At the same time, vegetables such as parsnip (27.37%), celery (27.33%), cabbage (29%), broccoli (28.5%) and cucumber have a lower hydration capacity, so a lower digestibility (figure 2). In terms of pH dynamics in fresh vegetables, pH evolution was tested after 24 hours. It is found that after 24 hours the pH values have decreased, which means the occurrence of fermentative phenomena. This means that the pH decrease affects the digestibility of the food because the alcoholic fermentation produces carbonic acid, which can cause grain-intestinal discomfort, disrupting the normal and efficient functioning of the digestive tract (https://www.hindawi.com/journals/jchem/2017/9340427/abs/ Importance of food fiber, /Scientific Journal, Romania).

It can also be mentioned that some vegetables with a pH of 6,05-7 can be associated with acidity food rich in protein, while others with an acidic pH of 4,39-5 (the potatoes, cauliflower, tomatoes, capers, carrot, parsley) are not exactly the most suitable for being consumed in association with meat products, for example (figure 3).

Figure no. 3.PH dynamics in vegetables



Source: (own contribution)

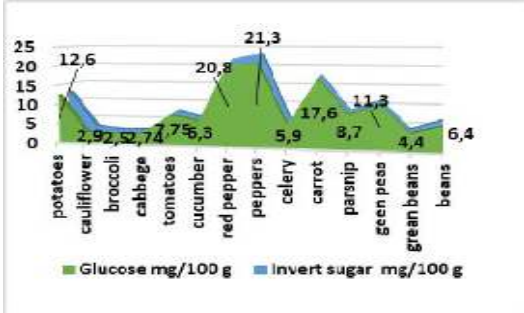
Comparing the glucose content with the invert sugar content from the vegetables, it was found that the red pepper and peppers had the largest content of glucose, then the carrot and potatoes, green beans.

In a smaller proportion of glucose is in the tomatoes, parsnip, cucumber and celery.

The lowest glucose content is found in cauliflower, broccoli and cabbage (2.52-2.9mg / 100g). It is noted that the invert sugar content of peppers is 21.3mg / 100g versus 20.8mg / 100g of glucose, the difference of 0.5mg/100g is the fructose content. So, the pepper content of glucose is by 97.65%, while the fructose content is just 2.35% (figure 4).

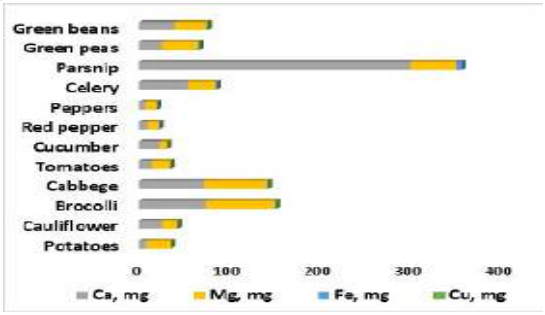
The importance of minerals in human metabolism makes the studied vegetables very important for optimal nutrition, especially in terms of micronutrient content. The dynamics of vegetable minerals indicate that they contain K in very large quantities, and the other micronutrients have a small, even very small weight. However, micronutrients such as magnesium are a mineral beneficial to our health, being considered the enemy of stress. It is found both extracellularly and intracellularly, being the fourth most important mineral in the body besides calcium, iodine, potassium and sodium. It is also responsible for multiple enzymatic reactions, for maintaining cell balance, for stimulating specific processes, such as myocardial contraction (figure 5). Iron is a trace element present in every cell in the human body. 85% of the amount of iron in the body is found in hemoglobin, the human body containing 2.3 grams of iron at women and 3.5 g at men.

Figure no. 4 The glucose analysis compared to invert sugar from vegetables



Source :(own contribution)

Figure no.5 Dynamic micronutrients in legumes



Source :(own contribution)

The experimental results for vegetables are presented in table 1 and 2.

Table no. 1 Experimental results for vegetables total fiber, %

Vegetables	R1, g	R2, g	P, g	A, g	Total fiber %
potatoes	0.249	0.200	0.021	0.00413	20
cauliflower	0.0919	0.090	0.028	0.00593	11,6
broccoli	0.5160	0.5009	0.033	0.00496	4,1
cabbage	0.032	0.0283	0.018	0.00653	2,83
tomatoes	0.041	0.0407	0.011	0.0047	6,6
cucumber	0.051	0.0407	0.013	0.00286	6
red pepper	0.030	0.026	0.013	0.00215	1,28
peppers	0.034	0.0208	0.011	0.00242	1,39
celery	0.148	0.014	0.014	0.0074	5,96
parsnip	0.282	3,34	0.011	1.751	4,9
green peas	0.447	0.164	0.084	0.00563	21,6
green beans	0.202	0.096	0.02	0.005	12,4

Source: (own contribution)

Table no. 2 Experimental results for minerals of vegetables

Vegetables	Ca, mg	Mg, mg	Fe, mg	Cu, mg
green beans	39,2	36,96	1	1,2
green peas	25,2	39,6	2	0,25
parsnip	299,6	51,04	6	
celery	54,6	29,92	1	
peppers	8,4	12,32	0,7	
red pepper	9,8	13,32	0,8	
cucumber	22,4	8,8	0,3	0,06
tomatoes	15,4	20,24	0,6	0,1
cabbage	71,4	69,52	1,5	1,5
broccoli	70	74,8	2	1
cauliflower	25,2	16,72	1	0,14
potatoes	8,4	27,28	1	0,16

Source: (own contribution)

5. Conclusions

1. During the digestive tract, through bile acids, the soluble fiber associate with cholesterol preventing its absorption into body and contributed to maintaining low cholesterol levels in the blood.

2. Insoluble fiber has a high-water absorption capacity, functioning as a rapidly expanding sponge, having an important role in regulating intestinal transit. they regulate digestion and stimulates intestinal muscles without aggression, increasing peristalsis and thus contributing to the faster and more efficient removal of food debris while changing the intestinal flora.

3. the benefits of fiber are associated with their mechanical action in the body. They are the ones that emphasize the transit of intestinal contents (especially insoluble fiber) through the digestive system, helping to eliminate blocked toxins in the intestines.

4.Comparing the glucose with the invert sugar contents from the vegetables, which assure the fermentation of vegetable, it was found that the red pepper and peppers had the largest content of glucose, then the potatoes and green beans.

5. The potatoes, cauliflower, tomatoes, capers, carrot are not exactly the most suitable for being consumed in association with meat products, for example, because they are an acid pH and they not assure a good digestion.

6. The dynamics of minerals indicate that legumes contain Ca and Mg in large quantities and the other micronutrients as Fe, Cu in small quantities. Micronutrient such as magnesium is a mineral beneficial to our health, being considered the enemy of stress. It is found both extracellularly and intracellularly, being the fourth most important mineral in the body besides calcium, iodine, potassium and sodium, being responsible for multiple enzymatic reactions, for maintaining cell balance, for stimulating specific processes, such as myocardial contraction. (figure 5). Iron is a trace element present in every cell in the human body. 85% of the amount of iron in the body is found in hemoglobin and magnesium.

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Empirical Study on the Example of an Economic Entity in Romania About Financial Performance Indicators

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Abstract

Today, the business environment faces many challenges, which have a major impact on the performance of economic entities, financial markets being influenced by vectors of change, such as: fierce competition, high costs, deregulation with not only financial but also social impact , the exchange rate and last but not least, globalization. This study presents the financial and non-financial indicators used to measure the performance of a Romanian economic entity, associates the concept of performance - profit, income and expenditure as elements directly related to measuring profit, so performance. It also presents aspects of profitability - a fundamental criterion for assessing the efficiency of the activity of an economic entity. The purpose of this paper is to demonstrate that profitability indicators are particularly important, indicating the effectiveness of an economic entity. This aspect is highlighted by an empirical study, on the example of an economic entity. The article concludes with the author's conclusion.

Key words: economic entity, performance analysis, performance indicators, profitability, value
J.E.L. classification: M21

1. Introduction

The globalization of the economy makes the external competitive environment of any economic entity become approximately the same for all countries, and the characteristics of the economic environment of developed countries are valid for the rest of the economies in transition or developing. The goal of any economic entity is value creation - investments for which the resulting efficiency is higher than the rate of return required by shareholders. This challenge has led managers to focus on value creation and differentiation from other parameters - earnings. Therefore, the competitiveness of economic entities is closely linked to performance, and the knowledge of the best methods of measuring performance and value creation leads to its increase. In order to be able to measure performance, the information needs to be presented correctly. Thus, the role of information provided by accounting should not be neglected. By using information that accurately expresses the financial situation of an economic entity, performance measurement indicators can be calculated and economic models developed. Financial performance provides a true and relevant picture for choosing an optimal financial structure, by establishing the most appropriate asset management strategies for adopting those investment and dividend decisions that will serve to improve the performance of economic entities. From a financial point of view, a profitable investment increases the value of the economic asset. Modern financial indicators are based on the concept of value creation, representing a benchmark for expressing real financial performance. Indicators such as the rate of economic return on assets and net profit per share are used as measures of performance in a large number of economic entities, although these indicators are not theoretically correlated with value creation. In order to highlight value creation within economic entities, a wide range of indicators is used that can be grouped into three broad categories: accountants, economists and stockbrokers.

2. Lierature review

In the literature, the concept of performance has been assigned various meanings, such as: competitiveness, the positive result of an activity, profitability, efficiency, success, outstanding achievements in a field, satisfaction, productivity, etc. In the national literature, an important contribution was made by specialists such as: Neghină (2012) which supports the idea of a negative influence of the effective tax rate on performance, using economic profitability (ROA) and financial profitability (ROE); Pântea M, Gligor D and Anis C. (2014) who, in the light of a long-term study, found that the size of the economic entity, the intensity of capital and the number of employees positively influence the performance. Bolboroș (2014) also argues that an increase in debt, although it contributes to increasing risk, also determines an increase in performance. Externally, Chinaemeren, Anthony and Erdogan (2015) made a significant contribution to the literature, demonstrating that there is a positive correlation between company size and financial performance. A more recent study by specialist G.Kokins (2017) indicates that, "the performance of current organizations is a multivalent concept that incorporates the overall satisfaction perceived both by the organization, by entrepreneurs and employees, and that perceived in its external environment, by third parties such as: suppliers, customers, the state and civil society in general".

3. Research methodology

The research involved the observance of principles and rules specific to the research methodology: the review of the literature, the collection and processing of data, the synthesis of theoretical aspects and results obtained. Theoretical research analyses and describes the current state of knowledge as a result of specialized theoretical documentation, in the context of national and international references. The idea of the research is due to the concepts of profitability / return and growth that together give the measure of the profitability of an economic entity. The central question of the research is: *Is any profitable activity also rewarding? And vice versa: Is any rewarding entity also profitable? And in the alternative: Are there entities that are profitable but not rewarding?*

4. Semantic analysis of performance

The answer to the question: *What is the performance of an economic entity*? it is far from as simple as one might think. Although there are many definitions of performance in the literature, there is still no consensus on the definition of the concept or how to measure it. Performance, success and development, these three elements became at the beginning of the 21st century a truly obsessive motivation of economic entities, in an attempt to enter and maintain themselves sustainably, in a competitive market.

Transposed into the business environment, the term performance is interpreted as a good success or as development, both in general and in specific areas of activity of economic entities (commercial, technical, financial, social, etc.) that can be quantified with the help of a set of indicators or criteria of quantitative and qualitative nature (profit, profitability, turnover, cash flow, market share, cost of externality, brand image, social climate, reputation of the management team, etc.) constituting the expression of management an entity. Managers are interested in the overall performance of economic entities, investors will perceive performance through return on investment, employees and the customer are interested in the stability of the entity, while creditors consider solvency and liquidity.

4.1. Performance measurement

Performance measurement is essential for economic entities, i.e. the presence of an efficiency measurement system is a necessary condition for the proper management of an entity. In this regard, the best indicators should be chosen to reflect and make a major contribution to measuring the performance of an economic entity.

4.1.1. Relevance of the performance measurement system

The performance measurement system of an economic entity must include a set of equitable indicators, related to the strategy of the entity and to assist managers in their actions. Performance indicators must be able to assess the current state of an entity in relation to the degree of achievement of the assumed objectives. These practical indicators send a message to the entire entity about what is important to be known by all employees, namely: communicate the strategy defined by management including lower hierarchical levels; provides feedback on the performance of the management team; reflect the outcome of controls and improvements in a process; expresses in quantitative terms the results of the various activities of a process or of the process itself, in accordance with a specific objective.

4.1.2. Problems that may arise in measuring performance

Problems can arise in measuring performance when specialists choose performance criteria that seem appropriate, but without trying to place them in a coherent overall structure. Problems in measuring performance may arise when evaluating it, as, due to the lack of consensus around the notion of performance, specialists may use different performance indicators. In measuring performance, various problems may arise, among which we mention: (1) the organizational or environmental aspect of the selected criteria; (2) the particularity or universality of the criteria; (3) the normative or descriptive nature of the criteria; (4) the static or dynamic aspect of the criteria.

4.1.2.1. The organizational aspect of the performance criteria

Achieving the set objectives and productivity are the most used performance criteria, but it should not be overlooked that the designation of objectives as a performance criterion must taken into account the interaction between the entity itself and its business environment.

4.1.2.2. Universality of criteria

It is assumed that successful economic entities all have the same criteria (flexibility, adaptability, conciliation, sense of identification) and the identification of a performance must be guided by a set of valid universal indicators. In practice, however, it follows that each economic entity has its own objectives and chooses individually a unique set of performance criteria.

4.1.2.3. Normative or descriptive criteria

There are three types of managers, in the sense that: a first category prefers to use suggested criteria, another category prefers to measure performance deductively, stating that the entity must admit and use effective standards, and a third category have an approach measuring purely descriptive performance, avoiding evaluation standards;

4.1.2.4. Dynamic or static criteria

The static or dynamic aspect of performance variables is another problem in measuring the performance of an economic entity. Therefore, the performance criteria may be different from their sources. Performance criteria are subject to conflict between several opinions as to who should determine the criteria and who should provide the data for their measurement.

4.2. Level of analysis

In determining the performance criteria, an important role is played by the external environment in which the entity carries out its activity. In evaluating the performance of an economic entity, financial rates play a major role in the analysis of profitability, liquidity assessment, estimation of future profit, competition analysis and bankruptcy prediction. With the use of financial rates, the question naturally arises. Which report is most relevant in the analysis of performance, from the number and type of reports that can be prepared based on available data? Thus, several variables must be correlated from which to result practically the factors that must be taken into account in the elaboration of the reports.

4.3. About performance indicators

At the level of each economic entity, the strategic and operational performance at the level of organizational team and individual, respectively, in the systemic approach of the management process, is the major objective, given that the entity must constantly relate to market demand and supply adequacy to identified needs. In order to be able to assess whether the strategies are

effective and the extent to which the objectives are achieved, an integrated system of performance indicators must be defined, through which the economic entity is able to constantly assess its resources and act towards their efficiency growth of their use. In this regard, any managerial decision must be based on a very good knowledge of the current state of the entity, which would not be possible in the absence of a system of performance indicators to inform management about the results obtained in all key activities and processes of the entity. To be effective, a performance indicator must be both the synthesis of several important data of the economic entity and meet the following S.M.A.R.T. criteria (smart indicator) shown in table 1:

Table no. 1. SMART criteria of performance indicators

SMART criteria	Explanation
-S for specific and simple:	it must be clear, specific, simple to understand by users;
-M for a measurable objective:	Allows the measurement of the achievement of an objective (efficiency) compared to a standard;
-A to be ambitious and achievable:	Must allow the challenge and its realization must be possible;
-R realistically:	Must consider available resources and means (efficiency);
-T for the defined period:	A good goal must be delimited in time (deadline).

Source: Authors' processing

In order to formulate the most appropriate performance indicators for an economic entity, several specific rules must be followed: (1) for a first orientation, the Internet allows access to a wide range of indicators; (2) formulating SMART indicators based on a set of questions such as: what? (discussing variables that can produce new ways to measure change in goals); how much? (to define the magnitude of the desired change); who? (to clarify who belongs to the target group); where? (specific information related to the area of applicability); When? (defining the time period).

It is preferable to create synthetic indicators that allow a comprehensive and rapid analysis. The indicator can be called an alert trigger. Only in case of slippage, the manager will ask for details to understand the cause of the discrepancy. The purpose of performance indicators is to improve the performance of the economic entity. In order to measure performance, there are three types of indicators: result indicators, process indicators and environmental indicators, and depending on the role played by the decision-maker, performance indicators can be classified into three categories as follows: (1) warning indicators, which inform of an abnormal state of the system that requires short-term intervention; (2) remedial action; in practice, the alert indicator may signal an increase in a certain cost or a decrease in quality for a particular product; (3) equilibrium indicators, to monitor the entity's progress towards the proposed goal. These indicators are able to measure the reliability of the deadlines and compare the results obtained with the previous ones and with the established objective. The question naturally arises: What performance indicators should be chosen? The performance indicators are numerous, but it is essential to identify the most significant of them, as well as those that correspond to the activity of the economic entity, in order to obtain reliability and efficiency. In order to have a global vision on the entity's performances, three main groups of indicators are distinguished (human resources, marketing, financial-accounting) presented in table no. 2.

Table no. 2. Main groups of performance indicators

Groups of indicators	Subgroups	Explanations
Human resources indicators - these indicators allow the evaluation of the costs, involvement and competence of the employees of the economic entity, in the light of the following:		
	Average recruitment cost (ARC):	The average total cost of recruitment over a reference period is measured; it is determined using the following calculation relationship: ARC = total cost of recruitment in period x / number of recruits in that period
	Employee turnover rate	It measures the variation between the number of those leaving and the number of new recruits. It is determined by the following calculation relation: (number of departures in year N + number of arrivals in year N (2) / number of departures on 1 January of year N, the result obtained multiplied by 100 to obtain a percentage.

	Absenteeism rate	It measures the cost of employee absenteeism from the economic entity. Determined by the calculation relation: (number of hours of absence from the period / number of theoretical hours of work per period) x 100
	Employee training rate	Measures the number of training hours per employee. It is determined as follows: the number of employees trained during the year / total workforce.
Profitability / efficiency indicators of economic entities		
	Increase sales	The change in the sales of a public enterprise from one reporting period to another. Formula: ([Current sales] - [Previous sales]) / (Previous sales) = (Increased sales)
	ROI (return on investment)	It shows the efficiency of an investment. Formula: ([Return on Investment] - [Investment cost]) / (Investment cost) = (ROI)
	ROE (return on equity)	The value of the net income that a public enterprise generates in relation to the value of its own capital. Formula: (Net income) / (Equity) = (ROE)
	ROA (return on assets)	Indicates how profitable a public enterprise is in relation to its total assets. Formula: (Net income) / (Total assets) = (ROA)
	Return on employed capital	It measures the profitability of a public enterprise and the efficiency with which its capital is invested.
	Operating profit margin	It measures revenue after variable production costs are taken into account. Formula: (Operating income) / (Net sales) = (Operating profit margin)
	Net profit margin	Percentage of revenue of a public enterprise that represents net profit. Formula: (Net profit) / (Income) = (Net profit margin)
	Net income	The amount of money that a public enterprise makes after deducting all expenses and other costs. Formula: (Income) - (Expenses) = (Net profit)
	Gross profit margin	Percentage of revenue that represents profit after taking into account production and sales costs. Formula: (Gross profit) / (Income) = (Gross profit margin)
	Gross profit	Profit of a public undertaking, after taking into account production costs and sales. Formula: (Income) - (COGS) = (Gross profit).
	Economic added value (EVA)	An estimate of the additional economic profit of a public enterprise
	Average employed capital	Indicator showing profitability in relation to investments made in new capital
Key revenue performance indicators		
	Sales volume	The value of sales obtained in a reporting period and expressed in a number of units sold
	BT (Profit obtained before tax)	It shows the profit made by a public enterprise after taking into account the COGS (costs of goods sold), interest, administrative expenses (VAG), before deducting tax. Formula: (Income) - (COGS) - (Interest) - (VAG) = (EBT)
	BITDA (Gross operating income)	It measures profit after expenses and after interest, tax, depreciation and amortization. Formula: (Income) - (Expenses excluding interest, tax, depreciation and amortization) = (EBITDA)
	Profit before payment of interest and tax (EBIT)	An indicator of the company's profitability, which indicates the profit obtained before the payment of interest and tax Formula: (Revenue) - (COGS) - (Operating expenses) or Operating profit + Financial income = (EBIT)

Non-financial indicators		
	innovation processes; production capacity; the number of new products or services; development time of new products, number of patents; operational: efficiency; number of defects; the time required to deliver the product to the customer; trial; real-time delivery percentage; the average time required to complete the production according to the orders; the time required for installation and adjustment; actual production time.	employee education and skill levels; figures indicating employee satisfaction; availability of information systems: processes with advanced controls; the percentage of suggestions of the implemented employees; the percentage of compensation based on individual and team incentives.

Source: Authors' processing

The performance analysis using financial and non-financial indicators can guide the economic entity's future decisions regarding investment policy, changes in strategy in relation to the market, employees, creditors and decisions to expand or restrict the activity. Achieving the objectives is always related to achieving some indicators. Indicators are those elements that can be quantified by achieving which we demonstrate the achievement of the proposed objectives. Strengthening the market position of an economic entity requires the possession of information on the level of past performance and solutions to increase performance and competitiveness adapted to the requirements of the present society. Financial indicators play an important role in assessing the performance of an economic entity. Over the years, empirical studies have repeatedly demonstrated the usefulness of these indicators, as they play an important role in profitability analysis, liquidity assessment, future profit estimation, competition analysis and business failure prediction.

5. Profitability rates - relative expression of profitability

Considering that the development of the lucrative activities of an economic entity presupposes the existence of a capital to finance the necessary resources for this activity, we can say that the profitability represents the level of return on capital, regardless of its origin. Regarding the absolute profitability of an economic entity, the profit analysis is the one that can provide the most detailed information. Knowing the capacity of the economic entity to produce absolute profit is not sufficiently representative, so it is necessary to measure the mass of profit with other quantities that express the effort to obtain the mass of profit, thus freeing up profitability rates. The expression of the relative return is achieved through an instalment system that expresses the capacity of the economic entity to ensure, with the help of its available resources, the remuneration of the invested capitals. That instalment system shall be determined as the ratio between the economic and financial effects of an entity and the efforts made to obtain them. Thus, in determining the profit, an instalment system is used that expresses the profitability, such as: the economic, financial profitability, resources consumed, commercial and expenses compared to income rates, aspect summarized in table no. 3.

Table no.3 Return rates

Name of return rate	**Explanations - calculation relations**
1. The return rate on expenditure to revenue	It is determined as the ratio between total expenditure and total revenue, as appropriate the following calculation relation: Rt = Cht / Vt * 100 or Rt = Che + Chf + Chex / Ve + Vf + Vex * 100 where: Cht = sum of total expenses; Vt = sum of total revenues, Che = sum of operating expenses; Chf = amount of financial expenses; Chex = amount of extraordinary expenses, Ve = amount of operating income; Vf = amount of financial income; Vex = sum of extraordinary income
2. Commercial profitability rate	With the help of this rate, the efficiency of the commercial policy (supply, storage, sale) and of the pricing policy is analysed. Regardless of the calculation method, the purpose of the analysis is to explain the evolution of this indicator, respectively to establish its trend. Rc = Rexpl / CA * 100 or Rc = RBE / CA * 100 or Rc = Rnet / CA * 100 or Rc = (Re + Rf + Rex) - 1 / CA * 100 Rc = commercial profitability rate; Rexpl = operating result; RBE = gross operating result; Rnet = net result of the exercise; CA = turnover; P = profit related to turnover

3. Return on used resources rate	It is determined by reporting an indicator of the results to the consumption of resources involved in obtaining it, thus expressing the efficiency of the effort materialized in costs. Rrc = P / Ch * 100, where: Rrc = rate of return on resources consumed; P = profit related to turnover; Ch = expenses related to turnover;
4. Economic profitability rate	It determines the efficiency of the invested capital, of all the material and financial resources involved in the activity of the economic entity. Re = Rc / At * 100 or Re = RBE / At * 100 or Re = Rexpl / At * 100 where: Re = rate of economic profitability; RBE = gross operating result Rexpl = operating result; At = total assets; Aexpl = operating assets; Rc = current result.
5. Financial return rate	It is a significant indicator in assessing the economic and financial performance of the economic entity, both in the internal diagnosis and in the analysis requested by external partners. Rf = Rcurent / Kpm * 100 or Rf = Rnet / Kpp * 100 where: Rf = financial rate of return; Recurrent = current result of the exercise Kpm = permanent capital; Rnet = net result of the exercise; Kpp = equity
6. Market capitalization coefficient (PER = price earning ratio)	This indicator determines the reaction of the financial market according to the financial profitability and measures how many times investors are willing to pay the return on a share: PER = Cba / Pa where: PER = stock market capitalization coefficient; Cba = stock exchange rate of the action; Pa = profit per share
7. Interest rate	The interest rate is the main element on which the interest is calculated. Rdob = Interest / Interest-bearing debts, where: Rdob = interest rate.

Source: Authors' processing

The following lines present a summary of an empirical study on the example, producer and distributor of dairy products, which purchased the old dairy factory and developed it with the help of European money received on the Sapard program, in 2006. Thus the most significant rates were considered of the said economic entity and was performed on the basis of the balance sheet, calculation and interpretation of the net margin rate (Rpn), financial return (ROE), return on invested capital (ROIC), interest rate (Rdob) and analysis of the relationship between return on capital rates

Active	**Balance at the end of the financial year**		**Capital and debt**	**Balance at the end of the financial year**	
	Year 2018	Year 2019		Year 2018	Year 2019
I. Fixed assets	24.500.000	26.600.000	**I. Equity**	21.000.000	21.000.000
Intangible assets	700.000	700.000	**II. Provisions**	-	-
Tangible fixed assets	21.000.000	23.100.000	**III. Debts**	7.000.000	16.100.000
Financial assets	2.800.000	2.800.000	Long-term debts	14.000.000	10.500.000
II. Current assets	10.500.000	10.500.000	Short term debts	14.000.000	5.600.000
Inventories	3.500.000	4.200.000	Providers	4.200.000	3.500.000
Claims	5.600.000	4.900.000	Other operating debts	2.100.000	1.400.000
Register and bank accounts	1.400.000	1.400.000	Short-term bank debts	700.000	700.000
Prepayments	-		**IV. Advance income**	-	-
Active Total	35.000.000	37.100.000	**Total capitals and debts**	35.000.000	37.100.000

The simplified profit and loss account of the economic entity is:

- lei -

Element	**Financial exercise 2019**
Turnover (production sold)	42.000.000
Material expenses	28.000.000
Staff costs	5.600.000
Depreciation expenses	1.400.000
Interest expenses	700.000
Income tax expenses	840.000
Net income	5.460.000

1.Calculation of the return rates on capital:
1.a) Net margin rate (commercial profitability)

Rpn = PN / CA = 5,460,000 lei / 42,000,000 lei = 13%
The net margin rate of 13% shows that for every 1,000 lei obtained from the sale of dairy products, 130 lei will be found in the net profit of the entity and will be available for the remuneration of entrepreneurs.

1.b) Financial profitability
ROE = PN1 / CPR0 = 5,460,000 lei / 21,000,000 lei = 26%
Financial profitability is quite high, well above the inflation rate or the deposit interest rate, for a complete analysis it is good to analyse the risk assumed by the decision makers at the top of the economic entity's management.

1.c) Return on invested capital
ROIC = PN + Interest / AE = 5,460,000 lei + 700,000 lei / 21,000,000 lei + 7,000,000 lei = 22%
The rate of invested capital is 22%, which means that, for every 1.00 lei invested in the business, investors obtained a gain of 220 lei.

1.d) Interest rate
Rdob = interest / interest bearing debts = 700,000 lei / 7,000,000 lei = 10%
2. The connection between the return rates is made by the following calculation relation
ROE = ROIC + (ROIC - R dob) * DTL / CPR;
ROE = ROIC + Leverage
Leverage = (ROIC - Rdob) * DTL / CPR = (22% - 10%) * 7,000,000 lei / 21,000,000 lei = 4%
ROE = 22% + 4% = 26%

The positive leverage effect shows that the indebtedness is in support of the shareholders, the general manager effectively allocating the resources attracted from various creditors and thus generating additional gains.

6. Results

From the point of view of statistical logistics, as well as from the methodological point of view, in order to compare the determined economic-financial performance indicators, it is recommended to use annual average determinations for all indicators extracted at a given moment from the balance sheet. The indicators being compared must have the same extension of time. In order to confirm a minimum of economic and financial performance, a benchmark of the general appreciation of the size of the financial rate of return is its comparison with the average level of interest rates granted by credit institutions for bank deposits, which must be slightly ahead of it. At the same time, the size of the economic rate of return is comparable to the rate of inflation and must be higher than this.

7. Conclusions

The analysis of the performance of economic entities has become more and more important, each economic entity emphasizing the fulfilment and support of this process, being important to know what is the viability and sustainability of the entity. There is currently a great diversity of opinions, both on the concept of performance and on related concepts, such as: profitability, productivity, effectiveness, efficiency and sustainability. Any economic entity must ensure the provision of quality products to customers. Therefore, performance indicates that it also depends on the prices at which the consumed resources are purchased and the prices at which they will be sold. The difference between them, practically, represents the profitability of the entity, the productivity putting / and more or less the imprint on the performance. The empirical study shows that high profitability due to high productivity is a solid basis for performance, but does not guarantee its maintenance in the future. In order to maintain good profitability, there must be quality and responsibility in the provision of services and good flexibility in adapting quickly to the demands of the ever-changing market. In conclusion, it can be stated that the rate of economic profitability is

a basic indicator used to measure the volume of the entity's activity and its performance, constituting one of the strategic indicators for measuring the economic performance of the entity. The size of the return rate, expressing on the one hand the degree of remuneration of the capital employed in the activity of the entity and on the other hand, the way of remunerating the risks assumed by entrepreneurs, plays a decisive role in determining the long-term and short-term financing of an economic entity.

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The Geoconomic Impact of COVID-19 on the Global Economy

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Abstract

This article aims to contextualize the economic impact of the COVID-19 pandemic and highlight the different monetary policies and their social and geopolitical effects at the global and European levels. The first part of the article demonstrates that the current global crisis cannot be attributed to the effects of the coronavirus and containment measures alone, but to structural weaknesses in the world economy, which have not been corrected after the 2008 crisis. Then, starting from the available data on the pandemic and the financial crisis's economic impact, the following considers the possible economic policies to overcome the crisis and their social and geopolitical effects level of Europe and the world.

Key words: pandemic, covid19, financial crisis, economy
J.E.L. classification: G01

1. Introduction

As in previous global shocks, many commentators speak of a new post-covid 19 era that would permanently change the way our societies works. The visible impacts of the economic crisis that erupted at the start of 2020 are unprecedented since World War II. Consider the production downturn and the unemployment rise that simultaneously affected the globe or the financial aid injected by governments and banks to support the economy we can arguably affirm that we're living the most severe crisis since 1929.

The Covid-19 pandemic is linked to the Lehman Brothers bankruptcy milestones from 2008, the 9/11 attacks, or, if we further look back, the 1973' oil shock. Like the pandemic, the economic and political impact of the events are considerable. However, many analysts have magnified their longer-term importance, which remain more difficult to identify. It is dismissing the current crisis on an exogenous factor such as the COVID-19 pandemic is convenient because it avoids the severe problems linked to the economy, which affects even industrial groups and not just finance to the opaque financial flows deregulation. The political leaders and the big companies responsible for this precarious global financial situation prefer to attribute the pandemic's effects to Chinese authorities management or the WHO. These evils strike the world economy in 2020. The political leaders do this to hide their carelessness, their dodges in the face of the growing economic contradictions that engendered the 2008 crisis and have still not been fundamentally solved. Large firms also prefer to blame an exogenous factor for escaping regulatory policies and obtaining big amounts of financial aid under the guise of overcoming the crisis. These two things would be more difficult to justify if their responsibility in the current crisis. It is likely that the Trump's "China-bashing" has cynically electoral aims, or even that it is part of the toolbox in the bilateral trade negotiation with the United States. As a result, China would later announce American products' imports, an agreement desired before the November's presidential elections to increase Trump's re-election chances.

However, an April poll shows that 77% of Americans polled (and 90% of those who say they favor the Republican Party) believe the Chinese government is responsible for spreading the epidemic. In this context, the hundreds of thousands of deaths that this epidemic causes in the United States risk sustaining an anti-Chinese current in the population, limiting the future American administrations' tactics in their diplomatic and economic relations with China. Many analysts consider that the common phenomenon will not fail to occur in China either, reinforcing the climate

of a new cold war between the world's leading power and that which could weaken its hegemonic position (OECD, 2020).

2. Theoretical background

Economic thought among the classics and neoclassical has revealed several explanatory economic crisis theories. On the other hand, the term "financial crises" began to germinate and take on meaning only after the 1929 crisis, where we see serious studies and analyzes. From the Asian crisis of 1997, this term finds particular interest following the many theoretical and empirical models explaining the phenomenon. In this presentation, the study of this section will lead to distinguish three different periods (Kates, 2011).

The economic of the classical and neoclassical literature on crisis phenomena is not very broad. This literature considers that crises are economic phenomena that the classics qualify as "transient crises" and limited in time and that the neo-classics qualify as periods of "economic turbulence". The classics think that crises affect a well-defined sector, such as agriculture, textiles, railways, or credit, and cannot be presented as astonishing phenomena on which to study and entire theories. They define the phenomenon as "adjustment mechanisms carrying new progress by cleaning up the mistake made or unforeseeable changes of all kinds, especially in techniques". This general interpretation of the crises of the classical school was not specially called into question but reinforced by the questioning of its relevance. Classical economists are attached to the idea that the crisis is the result of the relative insufficiency of consumption in the face of a suddenly bloated supply, due either to the excessive savings of individuals or too rapid technical progress (Desai, 2014).

Oldani et al. (2013) defends the idea of the consumption implication in the crises onset. He considers the most credible opinion to be that which asserts that "the unproductive rich' consumption is necessary to give employment to the poor". This idea of saving is also formulated by Adam Smith who denounced the excessive use of savings to the detriment of consumers. On the other hand, the orthodox doctrine of neoclassical theory considers that crises result from a shock associated with a certain element whose origin is exogenous and which causes strong imbalances in the functioning of the various markets that make up the economic system. Therefore its duration is, variable and dependent on the nature of this shock which disrupts the proper functioning of the markets by causing an adjustment towards a new equilibrium. This crises conception stems from the fact that the neoclassical conceive of the economic system, in its natural state, as a set of markets where individuals, always rational, carry out their consumption and production plans. In this world, individuals seek to maximize the expected value of their utility by freely choosing an optimal basket of goods. According to this logic, the crisis presents itself as cyclical events, which come up against this natural balance. Faced with this, an adjustment process involving changes in relative prices is set in motion and involves the transition from one equilibrium system to another. This is a process that is triggered by price fluctuations leading to the disruption that is not expected to last long. Neoclassical theory predicts, moreover, that if the excess demand and supply disappear with price fluctuations, the system will become stable again and the period of adjustment after a disturbance should not last too long (Braga et al, 2010).

Kolb (2010) addressed "this theory" to the British Association in 1862 as an essay on the mathematical theory of political economy which was accompanied by a statistical study of trade fluctuations entitled "on the study of periodic commercial fluctuation". It is limited to drawing up statistical series with seasonal variations concerning discount rates, bond prices, number of bankruptcies, wheat prices, etc. In this analysis, Kolb preferred to treat price movements as long-term movements rather than cycles phenomena. Halm (2010) links crises to phenomena of imbalance. He considers that "we can better prevent them when we could better understand the ideal conditions for equilibrium".

In his view pure economy consists in the construction of a mathematical model making it possible to precisely define the situation in which an economy based on the products free exchange, on the free sale of labor power, tends to establish itself capital free movementand land free rental (Ibid.).

3. Research methodology

This research subject will require a methodology made up of several research stages:

- Study and analyze the countries affected by the financial crises from the 2008 and 2020 financial crisis. In this study, we will use statistics from the IMF, World Bank, and OECD databases.
- Observe and analyze external manifestations and possible crises causes. This analysis will aim to highlight the macroeconomic elements likely to shed light on possible macroeconomic mismanagement.
- Study these macroeconomic elements as a whole. It will be a question of determining links, of the "cause and effect" type, between these elements which can give a logical and homogeneous explanation on the macroeconomic management of the period before the crisis and the crisis period.
- Establish explanatory models of external manifestations and possible scenarios that illustrate the possible links existing between the possible effects of the Covid 19 crisis. This helps to understand how these crisis-affected countries exhibited macroeconomic mismanagement before and during the crisis.

This research theme aims to understand why pandemics hit countries' economies and which will be the possible outcomes of this crisis. From this analysis, the hoped-for idea is that crises are frequently triggered in emerging countries because the development model of them is based on exports and foreign capital flows. As a result, this model of emergence is thus called into question in the frequency of crises in these countries.

4. Findings

4.1. The economic impact of the coronavirus

It is still too early to have any idea of the full impact of COVID-19 on the entire world economy. The pandemic shock and containment measures are by themselves sufficient to cause a significant production drop. However, the combination of the financial crisis, the States's low public finances situation that has not recovered from the 2008 crisis, and the pandemic disruptive effects on the real economy will most likely lead to a recession such as the one during the World War II. Some analysts forecast that OECD countries would have a GDP drop of more than 15%. On May 6, 2020, European Commissioner Gentiloni officially admitted a contraction of more than 7% for the 2020' EU. In May 2020, the unemployment rate in the United States reached 14.7%, a level not seen since the 1930s depression. This can be explained by the increase in precarious jobs over the past thirty years; companies have quickly eliminated these jobs. Part of the fall comes from deferred consumption, which could revive demand when the situation returns to normal or when production and distribution are better suited to containment measures that could continue or resume in the coming months. The duration of these containment measures and both firms and states' ability to adapt to the new context will determine the crisis severity. The crisis is expected to be more devastating than in 2008 for several reasons. As Joe Biden points out, this is a more global crisis than in 2008. In 2009, following a very ambitious stimulus plan of 500 billion dollars from the Chinese government, China's growth exceeded 9% in 2009 and 10% in 2010. This supported global demand for raw materials, and indirectly the economies of less developed countries exporting them. In 2020, in addition to very severe recessions in most OECD economies, averaging more than 6%, most analysts forecast Chinese growth of 1.2% for 2020, a figure not seen in four decades. No demand from a major emerging economy will compensate for the demand collapse from OECD countries, explaining why the energy products prices fall, and minerals are already the strongest in years (Mallya et al., 2020).

In addition to the financial crisis effects, a real liquidity problem arises following the cessation of certain activities, both for people on technological unemployment and for companies that cannot repay their creditors. The States of the most developed economies can undertake to advance this liquidity and to freeze specific commercial and banking maturities, provided that the period of containment does not extend too long because public deficits are widening at an unprecedented speed since 1945, probably even faster than in 2008-2009. In addition to advancing liquidity and exempting firms and individuals from certain tax obligations or postponing them, States must also support a financial sector weakened by the stock market fall and the proliferation of bad debts caused by the

pandemic's effects in the real economy. Of course, it must be added to the rapid increase in public spending on health and social assistance as tax revenues collapse.

The projections for the widening of fiscal deficits within the OECD are very worrying. On average, the states' public debts had already increased during the 1970-1980 years, another following the 2008 crisis (although some states such as Germany had managed to return to a level of indebtedness below 2008). The explosion of public deficits can generate macroeconomic imbalances. States have benefited from low real interest rates to refinance themselves. States as Italy, Spain, Portugal, France, and Belgium risk reaching huge debt levels that are terrifying the bond markets, raising the rates at which they can refinance each other, and trigger a chain reaction like the one that the southern euro-zone countries. The so-called "snowball" public debt effects could lead to cases of bankruptcy and debt restructuring of some over-indebted countries. Highly indebted states such as Italy will see their balance sheets deteriorate, in many cases limiting their capacity to finance from the rest of the financial system that could result in some country very serious banking sector crises (Gans, 2020).

Unlike countries such as Japan or countries from northern Europe, the ones with underdeveloped economies are more dependent on international markets for their refinancing, which makes their situation very precarious if more states are in default. Therefore, their public finances could be under extreme pressure. Without external support, this could lead to the abandonment of state subsidies to its citizens and businesses affected by the lockdown or cause massive use of money printing, generating hyperinflations with catastrophic social effects. While this global crisis will not spare any region of the world, the economic impact could vary widely between different economies, depending on three factors types. First, it will depend on the role of this national economy in the international labor division. Some economies such as Spain, Croatia, Dubai, or Morocco are very dependent (for more than 10% of their GDP) on heavily affected sectors such as tourism and transport. Others are highly dependent on their energy products and minerals exports, in particular for the balance of their public finances (World Bank, 2020).

Second, the state of their public finances and their external debt at the time of the outbreak of the pandemic will be decisive. Their prior budgetary situation will determine the maneuver room of their governments to financially support the lockdown victims. States like Venezuela, Argentina, the Congo Republic, and Lebanon already have catastrophic ratings with almost no external credit capacity. Others have a better tax base but they do not have alternatives to avoid snowballing effects like Greece, Portugal, and Italy. Third, a destabilizing factor will be the degree of dependence on food imports. As in 2008, the crisis could affect food prices. Although food stocks in 2020 are considered high, many state interventions aimed at limiting their food products exports for strategic reasons and speculation movements could generate price spikes that would generate situations of malnutrition and possible hunger riots as in 2008.

4.2. Crisis outcome scenarios

1) Macroeconomic policies to overcome the crisis

On the macroeconomic level, many States will see a very sharp deterioration in the situation of their public finances. For some countries like Italy or the United States, we will come to situations never seen since the Second World War. According to the European Commission, EU governments have advanced up to 22% of GDP in cash and guarantees to support businesses and individuals affected by the financial crisis and containment (Gans, 2020), the amount that already reaches the rescue of 2008-2009 after only a few weeks of the crisis. States such as Italy and Spain are expected to see their deficits exceeding 10% of GDP, figures that are similar to those of Greece at the eurozone crisis began.

The Italian government predicted that its 2020' public debt would climb from 134.8 to 155.7%, a level even higher than the Greek public debt in 2010, at the start of the catastrophic crisis that the country experienced. Faced with this deterioration in public finances, we can expect several policies depending on each country gravity situation and probably a policy mix comprising different policies in different proportions. Countries that see a rise acceleration in their refinancing costs due to the increased load risk and the interest rates snowballing effect will attempt to run budget surpluses for years to come. This implies very harsh austerity policies, similar to those imposed after 2008 in

Ireland, Portugal, Spain, Greece or Latvia. These austerity policies will be achieved through cuts in public spending or increases in taxes on consumption (including water and energy), land, and personal income. These austerity policies will increase the poverty level and weaken the states functioning and their public services and generate significant social and political instability. The austerity policies are also expected to weaken the economies due to budget cuts in research, phenomena similar to what many EU member states already have suffered during the 2010s. These effects should further widen the technological gaps between the most advanced regions of developed countries and their semi-peripheries.

Some countries could even find themselves in a situation similar to Greece but with higher debt. 2020 Italy's debt is set to approach € 3 trillion, a level five times higher than Greece at the euro crisis worst time. The financial markets got carried away making the refinancing of these unsustainable states, and we can not rule out the possibility of restructuring their debt without affecting the balance sheets of Italian banks that held nearly 700 billion euros. The 750 billion Italian debt would be held by other European banks and funds, which could lead to a major international shock wave, especially if other countries fail at the same time. Another solution to the growing debt that will affect governments, but also many businesses and individuals, is to let inflation ease the debt. Also, in a context of deflation and low demand, this would require printing money. Moreover, it would take a new balance of power to impose it on national creditors, especially the financial sector and other bondholders, which would mean lower lobbying capacities of finance and an alliance of powerful social and economic forces. It would also require that the debt is denominated in national currency, which is not always the case (some countries have dollarized or euroized; other countries borrowed in foreign currencies).

Finally, this solution of absorbing the debt through inflation requires the government to exercise control over its national currency, which seems excluded within the eurozone since some member states will be the creditors of other debtor member states. The solution to inflation will generate complex redistribution phenomena that would cause dramatic consequences for the population reliant on a fixed income such as pensioners and the civil service, which would generate greater political instability. The most rational solution would be the exceptional tax on capital to stimulate public spending and promote a technological transition towards environmentally sustainable growth and strengthening public health, education, and housing services. This would require a radical break with the fiscal policies followed for half a century and a major political transformation given the increasingly close links between the current political ruling circles and the major capital holders. This scenario would only be possible in the event of major social explosions that would threaten the very existence of the current economic system, the premises of which we do not yet see.

2) Trade and Industrial Policies to Overcome the Crisis

As in previous crises, one can expect more protectionist measures from many struggling economies. Multilateral institutions have been weakened by the inability to produce a substantive trade agreement within the WTO framework. The Trump's presidency underlined the legitimacy of multilateralism and the WTO settlement body dispute and by the trade clash and political diplomacy of the world powers, such as the United States and China. If the state of their public finances and the size of their national economy allow it, governments can be expected to try to save their national champions in order to avoid the disappearance of industrial or financial sectors strategic for the national economic sovereignty. We can therefore expect a greater degree of state intervention in trade and industrial policy within the major economies of the world (United States, China, Japan, Germany, UK, France) and even some medium-sized economies (Italy, Russia, Turkey, South Korea). As in previous crises, we can expect nationalizations in defense of national champions in difficulty, more discrimination in favor of national firms in the award of public contracts, the emergence of new technical barriers, or unilateral tariff increases. The difference is that political currents in favor of protectionism and reshoring have never been so strong since 1945 in developed countries and since the 1970s in many large emerging countries.

It is still too early to see how far certain states will support mercantilist and sovereignist policies aimed to promote to reduce the international interdependence. The American and Japanese governments have already offered subsidies to companies, regardless their industry, which would like to relocate the production units they own in China. However, the amounts advanced remain

modest, and surveys of American business executives have revealed that most of the project to continue their existing activities in China. There is certainly a drastic drop in foreign direct investment (FDI) around the world, but this is not offset by an increase in investments at the national level, the latter also falling. At this stage, we cannot speak of substitution phenomena which would highlight the existence of a significant wave of reshoring. This is impossible, given the limited amount of data available, to see whether the policies aimed at promoting reshoring pursued by governments aim at conservative short-term electoral logic. The effects of this reshoring in terms of job creation should not be overestimated because many subcontracted activities in Asia are already capital intensive (pharmaceuticals, electronics, machine tools) and the continuous shift towards greater automation is taking place. that even a significant reshoring will not bring back the percentage of labor working in the industrial sector that the developed economies experienced before the globalization of production processes that began in the 1960s and 1970s. The effects of this reshoring job creation should not be overestimated because many subcontracted activities in Asia are already capital intensive, and the continuous shift towards greater automation is taking place. So, the unemployment rate will not meet the level experienced from the 1960s and 1970s when the globalization of production processes began.

Moreover, despite the importance of Chinese subcontractors, many production processes are more regionalized (at the level of the European Union and its neighborhood; at the level of North America and Central America with NAFTA and CAFTA + D: at the level of East Asia with ASEAN + 3) than globalized. It would therefore take a strong political impetus from the State to strongly accelerate the reshoring phenomena which would create a decoupling (a reduction in economic interdependence) between on the one hand East Asia, where even only China, and other parts of the Western economies. However, it should be noted that recent initiatives and statements by American, Chinese, Japanese and even European authorities on this subject have never been so important for decades and are much stronger than at the time of the 2008 crisis. The liberal movement in favor of multilateral trade liberalization has been weakened by the rise in protectionism and by the adoption of industrial and mercantilist policies since 2008, more particularly since the administration of Trump, and to a lesser extent by Xi Jinping. There have been attempts by some large economies, mainly the European Union, and revive Japan multilateralism. This is due to their geopolitical weakness which prevents them from openly playing the unilateralism card and which makes them fear a US-China G2 which would decide the future of the world economy without consulting them. Despite these initiatives in favor of the defense of multilateralism, we should continue to witness the pursuit of trade diplomacy when major economic powers impose bilateral agreements on their smaller partners. The least developed countries will be fragile and also find themselves in a bad negotiating position vis-à-vis the major economic powers.

With the catastrophic economic effects of COVID-19, this situation of competition between great powers, and mainly between the United States and China, is becoming more and more worrying, not only commercially, but also geopolitically, as in has witnessed for several years the increase in military budgets around the world.

5. Conclusions

Going back in the process of globalization in an attempt to achieve national self-sufficiency through the reshoring or substitution of raw materials is a costly chimera which would result in a radical drop in the standard of living of the populations but also in environmental deterioration, and a considerable increase in energy consumption. The COVID-19 pandemic has demonstrated how utterly inadequate rivalry between states is to counter the spread and heal the population in an interdependent global economy. The situation of low-income countries left to fend for themselves becomes even more dramatic and the chaotic situations which should follow will make it more difficult to control the pandemic. Choosing to exit the crisis through a mercantilist policy is not an issue. The global recession generates protectionist surges that will make it more difficult to pull the growth of the national economy through exports, regardless of the country considered. In the case of the eurozone, the countries of southern Europe which would choose to exit the euro or which would be pushed out would suffer a strong shock, similar to the effects suffered by Third World countries during the 1980s debt crisis and structural adjustment plans.

Their new national currency would be devalued, increasing the external debt and the price of imported goods for which there is no substitution in terms of national production. This would make national exports more competitive but in the face of generalized protectionist policies of many economies for the relatively poorly differentiated goods they can produce, it is unlikely that the additional growth in goods and services exports can offset the shock. And this without even taking into account the increased risks of speculative attacks against their new small and fragile national currencies and the flight of capital that will result. It is also difficult to see how these countries will then be able to launch policies to modernize their infrastructure and their productive apparatus as well as to raise the level of education to break with the low productivity and the low capacity for technological innovation of these economies. Desperate by monetary instabilities and the lack of capital, it is very possible that these states that left the eurozone would end up attracting investors (and facilitate the movement of capital by certain local economic elites) will eventually link their currency to the Euro, even for the smallest economies, their economy will be euroized. This "sovereignist" break would only be a facade that would not change the standard of living of the populations concerned. Within the two great world powers that are the United States and China, fears among political and economic elites of serious destabilizing social crises can launch these two countries into a conflictual headlong rush. Nationalist and xenophobic rhetoric could give the illusion to part of the population and to certain leaders that their financial, technological and military capacities will enable them to follow mercantilist policies of the imperialist type where the balance of geopolitical and military power will serve to guarantee outlets for their national firms.

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Product Differentiation Impact on Games Theory Models

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Abstract

Imperfect competition represents one of the main topic of modern economic analysis and it can be easily identified in the current economic climate. Whether we are reffering to the aggregate economic field or to a specific industry, certain topics can be highlighted due to their strong impact on the market analyse tools selection process: the differences between price and quantity competition scenario, competitors movement timing in a duopoly game, the role of product differentiation in determining market output/price levels or the presence of the market hierarchical structure. In order to better expolore the impact of previously mentioned concepts in a duopoly market, our present paper considers a consistent framework, making use of a product differentiation base model. We are discussing the market outcomes under quantity and price competition (Cournot & Bertrand simultaneous moves scenarios) but also sequential moves output competition (Stackelberg duopoly). We are also presenting a numerical simulation analyze that can be efficiently used to explore the model properties under the assumption of products differentiation degree variation. The models utilize both numerical and graphical presentation.

Key words: Stackelberg equilibrium, Stackelberg model, Cournot model, oligopoly, stability.
J.E.L. classification: C72, D01, D43, L13

1. Introduction

Oligopoly represents one of the main forms of imperfect competition. During various oligopoly theories over the years, three standard textbook models have been developed aiming to explain both economic output and pricing related decisions: Cournot model (1838), Bertrand model (1883) and the last but not the least Stackelberg model (1934). Due to the existence of various types of firms interaction as well as the complex nature of their interdependences, the use of only one oligopoly model is not adequate, therefore the next paragraphs will consider all three above mentioned models. At least four main aspects should be considered at the start of any market structure analysis: the decision of competing in price or output terms (very important topic in industrial organization), the timing of the competitors movement (sequential or simultaneous), the products typology (differentiated or homogenous) as well as the existence of a hierarchical structure. Subject to the above mentioned factors mix, the market performance and profit distribution will be significantly different.

In both Cournot and Betrand models, the players are choosing their strategy simultaneously, but Cournot player set his output level (price beeing determined by some unspecified agent hence market demand match the aggregate offer), whilst Bertrand player establish its selling price (firms being constrained to immediately meet the resulting customer demand). On the other side Stackelberg model is an hierachical model with firms choosing their output level sequentially. The leader (the sophisticated firm) takes into account its ability to manipulate his rival's output, whilst the follower (the naïve firm) adopt a Cournot behavior, considering the other firm's output level fixed.

2. Literature review

The current literature comparing the two equilibria in terms of output (Cournot & Stackelberg) is abundant. The classic conclusion is that the Stackelberg equilibrium is more efficient, total surplus being higher in the sequential game scenario, as per Boyer and Moreaux (1986 & 1987), Daughety (1990); Robson (1990), Albaek (1990), Anderson and Engers, (1992), Amir and Grilo, (1999), Ino and Matsumura, (2012) papers. Other researchers approach was simultaneous game scenarios comparison (Cheng, 1985; Judd, 1989; Symeonidis, 2003; Haraguchi & Matsumura, 2015; etc.). However, the aggregate analyze, including all the three previously mentioned models, has received scant attention in the current literature.

In the current paper, a differentiated products scenario is considered, based on which we are trying to explain Cournot, Bertrand and also Stackelberg static behavior, highlighting some interesting aspects such as market surviving potential, firm equilibrium and the impact of product differentiation on Nash equilibrium/subgame perfect equilibrium theory. The originality of this paper arises from the ideea of bringing together and comparing simultaneously, all three mentioned models, not just theorethically, but also making use of numerical simulation. The principles of the related mathematic model are also described below.

3. Research methodology

The scenario used in the paper is one with plenty consumers but only two producers of differentiated goods. What the consumers are actually targeting to maximize, is their own satisfaction, described as the difference between own utility function and the spendings involved by the required product amounts purchasing (no budgetary constraints are considered):

$$S = U(q_1, q_2) - \sum_{i=1}^{2} p_i q_i \qquad (1)$$

The choosen utility function belongs to quadratic class (non-linear type), having separable variables, also assuming strict concavity. The last hypothesis involves double derivability, the existence of a second order derivate as well as its negativity.

$$U(q_1, q_2) = aq_1 + aq_2 - \frac{bq_1^2 + 2dq_1q_2 + bq_2^2}{2} \qquad (2)$$

where $a > 0, b > 0,\ d > 0$ (substitute products). Considering $b > d$, an imperfect substitutability is reflected, whilst setting $b = d$ a homogenous product scenario is assumed.

The starting point in duopoly direct but also inverse demand functions calculation, is represented by the derivation of the consumer satisfaction function. Their expressions are determinated as follows:

$$\frac{\partial S}{\partial q_1} = p_1 = a - bq_1 - dq_2 \rightarrow q_1 = \frac{a - p_1 - dq_2}{b} \qquad (3)$$

$$\frac{\partial S}{\partial q_2} = p_2 = a - bq_2 - dq_1 \rightarrow q_2 = \frac{a - p_2 - dq_1}{b} \qquad (4)$$

Applying substitution methodology, will lead to:

$$q_1 = \frac{a(b-d) - bp_1 + dp_2}{b^2 - d^2} \quad (5) \qquad q_2 = \frac{a(b-d) - bp_2 + dp_1}{b^2 - d^2} \quad (6)$$

a system similar to those before used by Dixit (1979), Singh &Vives (1984), Imperato et all (2004), Tremblay (2011).

It can be noted the necessity that $b > d$ at this stage.

The production costs are further considered different, expressed by linear functions ($C_1 = c_1 * q_1$, $C_2 = c_2 * q_2$), also matching marginal costs. Based on these assumptions, the profit function become:

$$\pi_i = (p_i - c_i)q_i \,, (\forall) i = \overline{1,2} \qquad (7)$$

and further

$$\pi_1 = (p_1 - c_1)q_1 = aq_1 - b\mathrm{q}_1^2 - dq_1q_2 - c_1q_1 \quad (8) \quad \pi_1 = \frac{\mathrm{a(b-d)} - \mathrm{bp}_1 + \mathrm{dp}_2}{b^2 - d^2}(p_1 - c_1) \quad (9)$$

$$\pi_2 = (p_2 - c_2)q_2 = aq_2 - b\mathrm{q}_2^2 - dq_1q_2 - c_2q_2 \quad (10) \quad \pi_2 = \frac{\mathrm{a(b-d)} - \mathrm{bp}_2 + \mathrm{dp}_1}{b^2 - d^2}(p_2 - c_2) \quad (11)$$

The market output level/selling price depends on the type of two firms interaction. If the duopolists choose to adopt an output strategy, deciding to move simultaneously, without knowing his rival answer, we are dealing with a Cournot behavior. By solving the profit maximization problem in terms of output, we can find out the players best response functions. Further application of systems solving substituting method leads to the of the Nash equilibrium output values:

$$\begin{cases} \frac{\partial \pi_1}{\partial q_1} = a - 2bp_1 - dq_2 - c_1 = 0 \\ \frac{\partial \pi_2}{\partial q_2} = a - 2bp_2 - \mathrm{d}q_1 - c_2 = 0 \end{cases} \rightarrow \begin{cases} q_1 = \frac{a - c_1 - dq_2}{2\mathrm{b}} \\ q_2 = \frac{a - c_2 - dq_1}{2b} \end{cases} \rightarrow q_1 = \frac{a - c_1 - d\frac{a - c_2 - dq_1}{2b}}{2\mathrm{b}} = \frac{2ab - 2\mathrm{b}c_1 - \mathrm{a}d + dc_2 + d^2q_1}{4b^2}$$

$$q_1(4b^2 - d^2) = a(2b - d) - 2bc_1 + dc_2 \rightarrow q_1 = \frac{a}{2\mathrm{b}+\mathrm{d}} - \frac{2bc_1 - dc_2}{4b^2 - d^2} \quad (12) \rightarrow$$

$$q_2 = \frac{a - c_2 - d(\frac{a}{2\mathrm{b}+\mathrm{d}} - \frac{2bc_1 - dc_2}{4b^2 - d^2})}{2\mathrm{b}} = \frac{2ab - 2bc_2 - ad + dc_1}{2b} = \frac{a(2\mathrm{b}-\mathrm{d})}{4b^2 - d^2} - \frac{2bc_2 - dc_1}{4b^2 - d^2} = \frac{a}{2\mathrm{b}+\mathrm{d}} - \frac{2bc_2 - dc_1}{4b^2 - d^2} \quad (13)$$

The corresponding prices, will result immediately:

$$p_1 = \mathrm{a} - \mathrm{b}\left(\frac{a}{2\mathrm{b}+\mathrm{d}} - \frac{2bc_1 - dc_2}{4b^2 - d^2}\right) - \mathrm{d}\left(\frac{a}{2\mathrm{b}+\mathrm{d}} - \frac{2bc_2 - dc_1}{4b^2 - d^2}\right)$$
$$= \frac{ab}{2\mathrm{b}+\mathrm{d}} + \frac{c_1(2b^2 - d^2) + bdc_2}{4b^2 - d^2} \quad (14)$$

$$p_2 = \mathrm{a} - \mathrm{b}\left(\frac{a}{2\mathrm{b}+\mathrm{d}} - \frac{2bc_2 - dc_1}{4b^2 - d^2}\right) - \mathrm{d}\left(\frac{a}{2\mathrm{b}+\mathrm{d}} - \frac{2bc_1 - dc_2}{4b^2 - d^2}\right)$$
$$= \frac{ab}{2\mathrm{b}+\mathrm{d}} + \frac{c_2(2b^2 - d^2) + bdc_1}{4b^2 - d^2} \quad (15)$$

and finally the profits level will be determinated

$$\pi_1 = (\,p_1 - \,c_1)\,q_1 = \left(\frac{ab}{2\mathrm{b}+\mathrm{d}} + \frac{c_1(2b^2 - d^2) + bdc_2}{4b^2 - d^2} - \,c_1\right)\left(\frac{a}{2\mathrm{b}+\mathrm{d}} - \frac{2bc_1 - dc_2}{4b^2 - d^2}\right)$$
$$= \frac{a^2b}{(2b+d)^2} - \frac{2\mathrm{ab}(2bc_1 - dc_2)}{(2b+d)(4b^2 - d^2)} + \frac{\mathrm{b}(2bc_1 - dc_2)^2}{(4b^2 - d^2)^2} \quad (16)$$

$$\pi_2 = (\,p_2 - \,c_2)\,q_2 = \left(\frac{ab}{2\mathrm{b}+\mathrm{d}} + \frac{c_2(2b^2 - d^2) + bdc_1}{4b^2 - d^2} - \,c_2\right)\left(\frac{a}{2\mathrm{b}+\mathrm{d}} - \frac{2bc_2 - dc_1}{4b^2 - d^2}\right)$$
$$= \frac{a^2b}{(2b+d)^2} - \frac{2\mathrm{ab}(2bc_2 - dc_1)}{(2b+d)(4b^2 - d^2)} + \frac{\mathrm{b}(2bc_2 - dc_1)^2}{(4b^2 - d^2)^2} \quad (17)$$

If the duopolists decide to compete in terms of price instead, their action path beeing also simultaneously manifested, the Bertrand scenario is assumed . First order condition for the profit expression, represent the starting point in the determination of the Nash equilibrium price values, all the related mathematic calculations beeing further described :

$$\begin{cases}\frac{\partial \pi_1}{\partial p_1}=\frac{\mathrm{a(b-d)-bp_1+dp_2}}{b^2-d^2}-\frac{\mathrm{b(p_1-c_1)}}{b^2-d^2}=0\\ \frac{\partial \pi_2}{\partial p_2}=\frac{\mathrm{a(b-d)-bp_2+dp_1}}{b^2-d^2}-\frac{\mathrm{b(p_2-c_2)}}{b^2-d^2}=0\end{cases} \rightarrow \begin{cases}a(b-d)+bc_1+dp_2-2b\,p_1=0\\ a(b-d)+b\,c_2+dp_1-2b\,p_2=0\end{cases} \rightarrow$$

$$\begin{cases}2b\,p_1-dp_2=a(b-d)+b\,c_1\\ -dp_1+2bp_2=a(b-d)+b\,c_2\end{cases}$$

The equations system solution is $p_1=\frac{a(b-d)}{2\mathrm{b-d}}+\frac{b(2bc_1+dc_2)}{4b^2-d^2}$ (18), $p_2=\frac{a(b-d)}{2\mathrm{b-d}}+\frac{b(2bc_2+dc_1)}{4b^2-d^2}$ (19)

By substituting and solving the new created equations system (q_1 and q_2 as unknowns), will obtain:

$$q_1=\frac{ab}{(\mathrm{b+d})(2\mathrm{b-d})}-\frac{b^2dc_2+bc_1(d^2-2b^2)}{(4b^2-d^2)(d^2-b^2)} \quad (20)$$

$$q_2=\frac{ab}{(\mathrm{b+d})(2\mathrm{b-d})}-\frac{b^2dc_1+bc_2(d^2-2b^2)}{(4b^2-d^2)(d^2-b^2)} \quad (21)$$

$$\pi_1=(p_1-c_1)\,q_1=\left(\frac{a(b-d)}{2\mathrm{b-d}}+\frac{b(2bc_1+dc_2)}{4b^2-d^2}-c_1\right)\left(\frac{ab}{(\mathrm{b+d})(2\mathrm{b-d})}+\frac{b^2dc_2+bc_1(d^2-2b^2)}{(4b^2-d^2)(d^2-b^2)}\right)$$
$$=\frac{a^2b(b-d)}{(\mathrm{b+d})(2\mathrm{b-d})^2}+\frac{\mathrm{ab}[bdc_2+c_1(d^2-2b^2)]}{(\mathrm{b+d})(2\mathrm{b-d})(4b^2-d^2)}-\frac{\mathrm{ab}^2(2bc_1-dc_{2)}}{(\mathrm{b+d})(2\mathrm{b-d})(4b^2-d^2)}$$
$$+\frac{b^2(4b^2dc_1c_2+2bd^2c_1^2-4b^3c_1^2-bd^2c_2^2-d^3c_1c_2)}{(4b^2-d^2)^2(d^2-b^2)} \quad (22)$$

$$\pi_2=(p_2-c_2)\,q_2=\left(\frac{a(b-d)}{2\mathrm{b-d}}+\frac{b(2bc_2+dc_1)}{4b^2-d^2}-c_2\right)\left(\frac{ab}{(\mathrm{b+d})(2\mathrm{b-d})}+\frac{b^2dc_1+bc_2(d^2-2b^2)}{(4b^2-d^2)(d^2-b^2)}\right)$$
$$=\frac{a^2b(b-d)}{(\mathrm{b+d})(2\mathrm{b-d})^2}+\frac{\mathrm{ab}[bdc_1+c_2(d^2-2b^2)]}{(\mathrm{b+d})(2\mathrm{b-d})(4b^2-d^2)}-\frac{\mathrm{ab}^2(2bc_2-dc_{1)}}{(\mathrm{b+d})(2\mathrm{b-d})(4b^2-d^2)}$$
$$+\frac{b^2(4b^2dc_1c_2+2bd^2c_2^2-4b^3c_2^2-bd^2c_1^2-d^3c_1c_2)}{(4b^2-d^2)^2(d^2-b^2)} \quad (23)$$

If a firms sequential moving scenario is preffered to the simultaneous moving one, we face a Stackelberg model. Assuming player 1 as the first mover, the main problem will be to maximize its profit level, considering his rival's subsequent move, which is not controlable but at list predictable. This issue can be solved by using backward induction. In the second stage, the follower chooses his output level in order to maximize profit, given the output choice of the leader. In the first stage instead, the leader chooses its profit maximizing output knowing exactly what his rival's answer is. All the related mathematic Appendix calculations, leads to the bellow mentioned subgame perfect equilibrium values:

$$q_1=\frac{2ab-ad+dc_2-2bc_1}{4b^2-2d^2} \quad (24) \qquad q_2=\frac{4ab^2-ad^2-4b^2c_2+d^2c_2-2abd+2\mathrm{bd}c_1}{2b(4b^2-2d^2)} \quad (25)$$

$$\mathrm{p_1}=\frac{2ab-ad+dc_2+2bc_1}{4\mathrm{b}} \quad (26) \qquad \mathrm{p_2}=\frac{4ab^2-ad^2+4b^2c_2-3d^2c_2-2abd+2\mathrm{bd}c_1}{4(2b^2-d^2)} \quad (27)$$

$$\pi_1=\frac{(2ab-ad+dc_2-2bc_1)^2}{8b(2b^2-d^2)} \quad (28) \qquad \pi_2=\frac{(4ab^2-ad^2-4b^2c_2+d^2c_2-2abd+2\mathrm{bd}c_1)^2}{16b(2b^2-d^2)^2} \quad (29)$$

Comparing the equilibrium values of both output strategy games (Cournot and Stackelberg), some interesting conclusions can be reached:

- The leader output level is higher in the Stackelberg scenario, knowing that the follower will respond by cutting its own;
- The leader / the follower charge lower prices than in Cournot game.
- Although duopolist's aggregate profits fall, the leader win extra profits by taking a greater market share. This is the first-mover undeniable advantage of the Stackelberg game.

Next paragraphs will analyze particular situations than can appear. First one is the $b = d$ scenario (perfect substitute products situation). The equilibrium values can be synthesized as per below table:

Table no. 1 Cournot/Bertrand/Stackelberg homogenous products equilibrium figures

Variable	p_1	p_2	q_1	q_2	π_1	π_2
Cournot	$\frac{a+c_1+c_2}{3}$	$\frac{a+c_1+c_2}{3}$	$\frac{a-2c_1+c_2}{3b}$	$\frac{a+c_1-2c_2}{3b}$	$\frac{(a-2c_1+c_2)^2}{9b}$	$\frac{(a+c_1-2c_2)^2}{9b}$
Bertrand	c	c	$\frac{a-c}{2b}$	$\frac{a-c}{2b}$	0	0
Stackelberg	$\frac{a+2c_1+c_2}{4}$	$\frac{a+2c_1+c_2}{4}$	$\frac{a-2c_1+c_2}{2b}$	$\frac{a+2c_1-3c_2}{4b}$	$\frac{(a-2c_1+c_2)^2}{8b}$	$\frac{(a+2c_1-3c_2)^2}{16b}$

Source: authors' calculations

Remarks:

- Making $c_1 < c_2$ assumption, two thirds of the Stackelberg leader reached output matches first player outcome in the simultaneous output game, latter result beeing higher than the Cournot second player / Stackelberg follower's output. If we decide to consider $c_1 > c_2$ hypothesis, an opposite rank can be considered. In the simultaneous price scenario instead, both players produce the same outcome.
- The highest level of charged price is triggered in the Cournot scenario, with sequential game strategy following closely. The Bertrand game instead, reveals the most interestig situation, both players charged price matching lowest possible value for mantaining economic rentability - the marginal cost (Bertrand paradox).
- Although the highest profit level is attained by the Stackelberg leader, aggregate value is maximized in the Cournot scenario. Bertrand strategy offers aggregate zero profit, as a Bertrand paradox consequence.
- In the simultaneous price scenario the related results are determinated by the simple fact that both players production costs should match. However, if a different situation can be found on the market, only the firm with lower cost is expected to survive (producing the perfectly competitive market output level) whilst the other one will leave the market.

The second highlighted scenario is the particular one when d = 0 (independent products). Once triggered, the firms connection will be lost, and it will no longer matter the type of the choosen strategy (a simple look at Table no. 2 values is good enough to highlight this aspect).

Table no. 2 Cournot/Bertrand/Stackelberg independent products equilibrium figures

Variable	p_1	p_2	q_1	q_2	π_1	π_2
Cournot	$\frac{a+c_1}{2}$	$\frac{a+c_2}{2}$	$\frac{a-c_1}{2b}$	$\frac{a-c_2}{2b}$	$\frac{(a-c_1)^2}{4b}$	$\frac{(a-c_2)^2}{4b}$
Bertrand	$\frac{a+c_1}{2}$	$\frac{a+c_2}{2}$	$\frac{a-c_1}{2b}$	$\frac{a-c_2}{2b}$	$\frac{(a-c_1)^2}{4b}$	$\frac{(a-c_2)^2}{4b}$
Stackelberg	$\frac{a+c_1}{2}$	$\frac{a+c_2}{2}$	$\frac{a-c_1}{2b}$	$\frac{a-c_2}{2b}$	$\frac{(a-c_1)^2}{4b}$	$\frac{(a-c_2)^2}{4b}$

Source: authors' calculations

4. Findings

The next paragraphs are trying to facilitate a better understanding of the three behavioral types described in the paper as well as impact when products substitutability degree starts to change. With this precise goal, we illustrate a differentiated products duopoly scenario, assuming specific values for model entrance parameters, as follows: a = 500, b=2, $c_1 = 60$, $c_2 = 50$. Once this hypothesis made, we consider the model's main parameter matching d = 1 value.

The demand functions will be obtained by substituting parameters values in (3) and (4); the result will be:

$$\frac{\partial U}{\partial q_1} = 500 - 2q_1 - q_2 = p_1 \qquad \frac{\partial U}{\partial q_2} = 500 - 2q_2 - q_1 = p_2$$

$$q_1 = \frac{500 - p_1 - q_2}{2} \qquad q_2 = \frac{500 - p_2 - q_1}{2}$$

Further substituting quantities expressions in (5) and (6), inverse demand functions are revealed:

$$q_1 = \frac{500 - p_1 - \frac{500 - p_2 - q_1}{2}}{2} = \frac{1000 - 2p_1 - 500 + p_2 + q_1}{4} \rightarrow q_1 = 166,(6) - 0.(6)p_1 + 0.(3)p_2$$

$$q_2 = \frac{500 - p_2 - \frac{500 - p_1 - q_2}{2}}{2} = \frac{1000 - 2p_2 - 500 + p_1 + q_2}{4} \rightarrow q_2 = 166,(6) - 0.(6)p_2 + 0.(3)p_1$$

Consumer surplus can be calculated as the difference between own utility function and price for purchasing required product amounts, whilst aggregate surplus includes also the producers profits.

A complete situation with all three equilibrium scenarios values, is analyzed in the bellow table:

Table no. 3 Cournot/Bertrand/Stackelberg equilibrium figures in b=2 & d=1 scenario

Strategic variable	p_1	p_2	q_1	q_2	π_1	π_2	S_c	S_t
Cournot model	234.7	231.3	87.3	90.7	15254.2	16440.9	23765.8	55460.9
Bertrand model	205.3	201.3	96.9	100.9	13693.6	14931.6	29341.0	57966.2
Stackelberg model	223.8	228.2	93.6	89.1	15322.3	15880.2	25033.6	56236.1

Source: authors' calculations

The degree of product differentiation can be easily adjusted, and we face now a much differentiated products scenario, as d = 0.5. This time, the proper substitutions led to the following result:

$$\frac{\partial U}{\partial q_1} = 500 - 2q_1 - 0.5q_2 = p_1 \qquad \frac{\partial U}{\partial q_2} = 500 - 2q_2 - 0.5q_1 = p_2$$

$$q_1 = \frac{500 - p_1 - 0.5q_2}{2} \qquad q_2 = \frac{500 - p_2 - 0.5q_1}{2}$$

whilst inverse demand functions became:

$$q_1 = \frac{500 - p_1 - \frac{500 - p_2 - 0.5q_1}{4}}{2} = \frac{2000 - 4p_1 - 500 + p_2 + 0.5q_1}{8} \rightarrow q_1 = 200 - 0.5(3)p_1 + 0.1(3)p_2$$

$$q_2 = \frac{500 - p_2 - \frac{500 - p_1 - 0.5q_2}{4}}{2} = \frac{2000 - 4p_2 - 500 + p_1 + 0.5q_2}{8} \rightarrow q_2 = 200 - 0.5(3)p_2 + 0.1(3)p_1$$

Consumer/aggregate surplus and all other equilibrium values, can be further observed:

Table no. 4 Cournot/Bertrand/Stackelberg equilibrium figures in b=2 & d=0.5 scenario

Strategic variable	p_1	p_2	q_1	q_2	π_1	π_2	S_c	S_t
Cournot model	254.9	250.6	97.5	100.3	18997.0	20127.2	24450.6	63574.8
Bertrand model	247.9	243.5	100.2	103.2	18741.9	19885.7	25867.8	64495.4
Stackelberg model	251.9	250.2	99.0	100.1	19001.8	20048.4	24789.2	63839.4

Source: authors' calculations

Finally, we consider a high homogeneity product degree scenario, reflected by a d = 1.5 value. Demand function expression will be:

$$\frac{\partial U}{\partial q_1} = 500 - 2q_1 - 1.5q_2 = p_1 \qquad \frac{\partial U}{\partial q_2} = 500 - 2q_2 - 1.5q_1 = p_2$$

$$q_1 = \frac{500 - p_1 - 1.5q_2}{2} \qquad q_2 = \frac{500 - p_2 - 1.5q_1}{2}$$

whilst inverse demand functions became:

$$q_1 = \frac{500 - p_1 - 3\frac{500 - p_2 - 1.5q_1}{4}}{2} = \frac{2000 - 4p_1 - 1500 + 3p_2 + 4.5q_1}{8} \rightarrow q_1$$
$$= 142{,}86 - 1.14p_1 + 0.86p_2$$

$$q_2 = \frac{500 - p_2 - 3\frac{500 - p_1 - 1.5q_2}{4}}{2} = \frac{2000 - 4p_2 - 1500 + 3p_1 + 4.5q_2}{8} \rightarrow q_2$$
$$= 142.(857142) - 1.(142857)p_2 + 0.(857142)p_1$$

Consumer surplus and all other equilibrium values, can be synthesized as per below:

Table no. 5 Cournot/Bertrand/Stackelberg equilibrium figures in b=2 & d=1.5 scenario

Strategic variable	p_1	p_2	q_1	q_2	π_1	π_2	S_c	S_t
Cournot model	217.8	215.8	78.9	82.9	12453.3	13747.83	22914.0	49115.1
Bertrand model	145.8	142.2	98.1	105.4	7453.9	8849.5	36216.9	52520.3
Stackelberg model	195.6	204.2	94.3	77.1	12795.9	11894.9	25763.0	50453.8

Source: authors' calculations

5. Conclusions

In all three models *d* parameter respresents the degree of product differentiation. With particular scenarios of perfectly substitutes / independent products already discussed, we further consider as *d* value interest area, the mathematic interval [0,10; 1.90] (a very poor / high product differentiation degree, trigger significantly closer scenarios to the homogenous products / monopoly solutions, then will be excluded from our current analyze).

As the *d* value increases, aproaching to the *b* parameter value (homogenous products case), the results are significantly different. Models based on a strategy in terms of output, offer a price equilibrium solution, far enough above marginal costs, despite the fact that the profits decline. In the Bertrand game instead, the outcome level decreases, getting close to the marginal costs area. Previous arguments can be successfully used in the tentative of making firms aware of the product differentiation importance, especially in the price competition scenario.

Turning our attention to the Stackelberg model, the paper is trying to explain what exactly happens with the strategic choice of the leader, when the product differentiation degree changes. In a homogeneous products scenario, the leader will decide to produce an output level, lower but very close to the monopoly level. If d parameter start to decrease, the leader will be constrained to reduce his produced quantity. As is well known, a small change of product differentiation degree will impact duopolists best reply functions. Focusing on the leader, two contrary effects will manifest. Although for any given level of follower's output, the leader's intention is to produce more, an increase in the rival's produced output compel the leader to produce less. The latter effect dominates initially, but at a certain moment, the former effect must take over, the produced amount trend will be inversed, rising toward the monopoly solution, as d parameter value approaches to zero.

We can further expand by using mathematic principles to also prove the previously reached conclusions. Maintaining the direction, we are highlighting the above simulation figures, their connection with the equilibrium values functions monotony, induced by d parameter variation. This way, last results can be rephrased as follows:

- In a simultaneous output competition game (Cournot game), initial scenario (d=1) ofer better results than in the high homogeneity scenario (d=1.5), but worse than in the poor substitutability situation (d=0.5). Equilibrium quantity, price and also profits follows decreasing trends, as the homogenity degree starts to increase (induced by first order derivatives negativity for the entire [0.10;1.90] interval). Consumer satisfaction is affected in the same manner and obviously the aggregate market surplus confirm the trend.
- In the price competition game (Betrand game), different trends can be observed: prices, profits and also aggregate market surplus fall, as the degree of product differentiation decrease (second scenario reveals the best result). The equilibrium quantity „hide" a scenarios mixture, decreasing trend validity maintaining as long as d value keeps outside of (1.09;1.69) area (for the first player), respectevely lower than 0.94 (for the second player). In any other scenario, the trend will be inversed. Consumer surplus instead, highlights an increasing trend, the total amount they have to pay for purchasing the required product quantity, lowering as the product homogeneity increase.
- In the sequential game (Stackelberg game), prices and profits fall as the substitutability degree increases, as well as the follower produced output (second scenario offers the best result whilst third scenario, the worst). The leader's equilibrium output level instead, follows a decreasing trend, as d parameter keeps lower than 1,21 value; after that, once the increase begins to manifest, the output level get close to the monopoly solution. Consumer surplus level registers an increasing trend on the interest area, but not good enough to affect the market aggregate surplus evolution, strongly influenced by the producers profits fall, once the products differentiation degree has started to increase.

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Appendix

$$\left.\begin{array}{l} a-2bp_2-\mathrm{d}p_1-c_2=0 \Rightarrow\ q_2=\frac{a-c_2-dq_1}{2b} \\ \pi_1=aq_1-b\mathrm{q}_1^2-dq_1q_2-c_1q_1 \end{array}\right\} \Rightarrow \pi_1=aq_1-b\mathrm{q}_1^2-dq_1\frac{a-c_2-dq_1}{2b}-c_1q_1$$

$$2b\pi_1=2abq_1-2b^2\mathrm{q}_1^2-adq_1+dq_1c_2+d^2\mathrm{q}_1^2-2bc_1q_1 \Rightarrow \pi_1=q_1\frac{2ab-ad+dc_2-2bc_1}{2\mathrm{b}}-\frac{2b^2-d^2}{2\mathrm{b}}\mathrm{q}_1^2$$

$$\frac{\partial\pi_1}{\partial q_1}=0 \Rightarrow \frac{2ab-ad+dc_2-2bc_1}{2\mathrm{b}}-\frac{4b^2-2d^2}{2\mathrm{b}}q_1=0 \Rightarrow q_1=\frac{2ab-ad+dc_2-2bc_1}{4b^2-2d^2}$$

$$q_2=\frac{a-c_2-d\frac{2ab-ad+dc_2-2bc_1}{4b^2-2d^2}}{2b}=\frac{4ab^2-2ad^2-4b^2c_2+2d^2c_2-2abd+2bdc_1+ad^2-d^2c_2}{2b(4b^2-2d^2)}$$

$$\Rightarrow q_2=\frac{4ab^2-ad^2-4b^2c_2+d^2c_2-2abd+2bdc_1}{2b(4b^2-2d^2)}$$

$$\mathrm{p}_1=\mathrm{a}-\mathrm{bq}_1-\mathrm{dq}_2=a-b\frac{2ab-ad+dc_2-2bc_1}{4b^2-2d^2}-d\frac{4ab^2-ad^2-4b^2c_2+d^2c_2-2abd+2bdc_1}{2b(4b^2-2d^2)}$$

$$=\frac{2ab(4b^2-2d^2)-2b^2(2ab-ad+dc_2-2bc_1)-d(4ab^2-ad^2-4b^2c_2+d^2c_2-2abd+2bdc_1)}{2b(4b^2-2d^2)}$$

$$=\frac{8ab^3-4abd^2-4ab^3+2ab^2d-2b^2dc_2+4b^3c_1-4ab^2d+ad^3+4b^2dc_2-d^3c_2+2abd^2-2bd^2c_1}{2b(4b^2-2d^2)}$$

$$=\frac{4ab^3-2abd^2-2ab^2d+2b^2dc_2+4b^3c_1+ad^3-d^3c_2-2bd^2c_1}{2b(4b^2-2d^2)}$$

$$=\frac{2ab(2b^2-d^2)-ad(2b^2-d^2)-dc_2(2b^2-d^2)+2\mathrm{bc}_1(2b^2-d^2)}{4b(2b^2-d^2)}=\frac{2ab-ad+dc_2+2bc_1}{4\mathrm{b}}$$

$$\mathrm{p}_2=\mathrm{a}-\mathrm{bq}_2-\mathrm{dq}_1=a-b\frac{4ab^2-ad^2-4b^2c_2+d^2c_2-2abd+2bdc_1}{2b(4b^2-2d^2)}-d\frac{2ab-ad+dc_2-2bc_1}{4b^2-2d^2}$$

$$=\frac{2ab(4b^2-2d^2)-2\mathrm{bd}(2ab-ad+dc_2-2bc_1)-b(4ab^2-ad^2-4b^2c_2+d^2c_2-2abd+2bdc_1)}{2b(4b^2-2d^2)}$$

$$=\frac{8ab^3-4abd^2-4ab^3+2abd^2-2bd^2c_2+4b^3c_2+2ab^2d-abd^2-2b^2dc_1-4ab^2d+2abd^2+4b^2dc_1}{2b(4b^2-2d^2)}$$

$$=\frac{4ab^3-2abd^2-bd^2c_2+4b^3c_2-2ab^2d+2b^2dc_1+2abd^2-2bd^2c_2-abd^2}{4b(2b^2-d^2)}$$

$$=\frac{b(4ab^2-3d^2c_2+4b^2c_2-2\mathrm{abd}+2\mathrm{bdc}_1-ad^2)}{4b(2b^2-d^2)}=\frac{4ab^2-3d^2c_2+4b^2c_2-2\mathrm{abd}+2\mathrm{bdc}_1-ad^2}{4(2b^2-d^2)}$$

$$\pi_1=(p_1-c_1)q_1=\left(\frac{2ab-ad+dc_2+2bc_1}{4\mathrm{b}}-c_1\right)\frac{2ab-ad+dc_2-2bc_1}{4b^2-2d^2}=\frac{(2ab-ad+dc_2-2bc_1)^2}{8b(2b^2-d^2)}$$

$$\pi_2=\left(\frac{4ab^2-3d^2c_2+4b^2c_2-2\mathrm{abd}+2\mathrm{bdc}_1-ad^2}{4(2b^2-d^2)}-c_2\right)\frac{4ab^2-ad^2-4b^2c_2+d^2c_2-2abd+2bdc_1}{2b(4b^2-2d^2)}$$

$$=\frac{(4ab^2-ad^2-4b^2c_2+d^2c_2-2abd+2bdc_1)^2}{16b(2b^2-d^2)^2}=(p_2-c_2)q_2$$

Diagnostic of Operational Systems in the Pharmaceutic Industry in Pandemy

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Abstract

In the framework of the increasing competition and the danger of the pandemic global crises, it becomes necessary to boost the operational systems in the pharmaceutical industry, improve the activity related to resource processing, in order to ensure the stability of the organizations. The operational systems of pharmaceutical companies are changing every decade, together with changes in production management, focusing primarily on productivity and economies of scale, economy quality, production flexibility on the scheduling of production, customer, and then - to the economy of speed, innovation, and knowledge, skills and cooperation.

One of the most important features of the operational systems is the operational strategy and its flexibility and adaptability because in the real business environment there are frequent changes in economic models, financial architecture, and production technologies. Therefore the operational strategy must take into account the current state of productive potential and the level and type of uncertainty, propose changes that will lead to the formation of future productive potential that will maintain or increase the level of competitiveness of the enterprise.

Key words: operational system, operational strategy, enterprise, management, pharmaceutical industry.
J.E.L. classification: I15

1. Introduction

The strengthening of the Romanian economy is based on ensuring the sustainability of industrial development and its primary links. For this reason, it is important to formulate strategic directions to increase the size and ways of using the productive potential of the enterprise. The author agrees with some researchers, who say that increasing the efficiency of using the resource potential of the economy is one of the most important criteria for successful reform in Romania. The main direction in diagnosing the operational system is to take into account the assessment of the productive potential. In the view of recent developments, discussions on the long-awaited EU pharmaceutical strategy are expected to be heated. The priorities, in this period of crisis for Europe, are to ensure the supply of medicines to patients who need them, research and development of new vaccines, diagnostic methods and treatments for use in the fight against COVID-19, make partnerships, and support organizations on the ground in combating COVID-19.

2. Literature review

The main direction of diagnosing the operational system is to consider the evaluation of the productive potential.

During different periods of economic development, the objectives for determining and assessing the productive potential of enterprises were drawn differently. The theory of potential emerged in the 1960s and 1970s when the systematic presentation of the main approaches to the representation of the indicated problem was defined. Studies that have identified the components of productive potential, as well as the defining aspects of this phenomenon, are known from the 1960s to the

1970s. It should be noted that the most widespread peculiarity is the view of resources on productive potential, which appears as a system of interdependent and interrelated production resources. In further research, the resource approach has developed in two directions: 1) the potential is considered as a complex of resources that are not interdependent with one another; 2) the interdependence of resources is accentuated. Gâf-Deac M. (2008) reveals the productive potential as a set of resources, which take the form of factors in the production process. A similar view can be found in Weber L. (2017), who sees the potential as a generalized, collective feature of resources.

Resource interdependence is defined by Goodfellow R. (1993) which characterizes productive potential as a resource complex without taking into account the real relationships that arise in the production process. For its part, Nebl T (2002), stresses out that the resource components of productive potential must be used for creative purposes and also indicates the need to integrate their resources, which reflects the second aspect in the resource approach. The importance of one or another combination of resources, their structural state, can be seen in the researches of Detmer W. & Schragenheim E. (2002), where the productive potential is presented as a complex of resources combined in the production process potent in the production of material goods. A similar situation was exposed by Popa I.&Duta L. (2017), who considers the productive potential of the complex of organically interconnected resources in terms of operational activities, enabling the achievement of an objective level of economic results.

Sharma S. (2014) emphasizes the limiting properties of the concept under investigation, arguing that the productive potential is characterized by quantitative and qualitative parameters of production resources and determines maximum manufacturing opportunities in each time frame.

The development of research has contributed to the division of the concepts of "potentially productive" and "resource potential", assuming that the latter is an integral part of the former. Development of the 21st-century resource concept, Caracia M.&Dell'Olmo P. (2006), insists that production systems, regardless of their size, must work with limited resources in dynamic environments. Managers are asked to designate production activities over time in parallel activities, respecting operational constraints and deadlines, while keeping resource costs at the lowest level. Thus, we can consider the potential of resources as the material and technical basis of the productive potential. According to other authors, the resources involved in the manufacturing process have already acquired a new quality of inputs, which is reflected in the productive potential at the time of its use, when effective factor interaction is ensured (Hill T, 2014).

However, it may be observed the ambiguity of interpretations of potential possibilities extracted from the resources used. Bosworth B. (1993) insists on the introduction of another concept, namely: "internal productive potential", which requires understanding the volume of all production resources and their potential opportunities that the economic system has at the production stage. It acts as an organic unit of all the basic elements of the production process that are processed or can be exploited. However, we can conclude that, in modern economic science, the perception of productive potential (manufacturing potential) has expanded, taking into account such characteristics as the integration and mutual substitutability of its potent components. There is an understanding that the balanced relationship between the components of potential leads to an increase in the maximum productivity of the economic system.

It should also be noted that modern definitions of production potential are characterized by a more detailed description of resource components. Besides, the term 'productive potential' is part of the "economic potential of the enterprise". At the same time, this trend of expanding the limits of productive potential complements the reverse aspiration to deepen the research need of its separate components.

According to some authors, McKinsey & Company's leaders in resource production operations, the company's potential is characterized by production capacities, internal development resources, financial resources, limited resource stocks, which can be used to achieve certain socio-economic objectives in the business environment (Hammer M&Somers K. 2016). It is also stated that the components directly involved in the production process (productive-technological, personal, natural resources, primary, financial, investment, innovation, intellectual) are often included in those that cannot be considered directly involved in the production process. According to this point of view, the productive potential of an enterprise represents the real opportunity, taking into

account the existence and rational use of all interdependent factors of production, in order to achieve strategic objectives in a dynamic external environment and the sustainable development of the enterprise.

According to Anastase I. (2007), the potential of the economic system would, by summary, entail all the possibilities of economic unity as an object of management with the impact of exogenous and endogenous factors of the external environment for a certain period. The above definitions underline the need to achieve corporate objectives by using productive potential. However, there are also opinions mentioning the relationship between the competitiveness of the products and the potential of the undertaking. For example, Moldavian author Belostecinic Gr. (2006), suggests that productivity, is a result of the quality of products and services, because the lack of quality leads to a halt in productivity, due to problems that arise in the marketing of lower quality goods. Thus, as part of the resource-based approach, more opinions have been developed so far.

By generalizing them we can affirm that the productive potential represents the complex of resources used in operational activities to achieve the strategic and tactical objectives of the enterprise. At the same time, the resource-based approach cannot be considered unique. Along with this, there is a market approach or an approach to economic efficiency.

Several definitions of productive potential reflect the results of production, taking into account the operational capacities of the undertaking. For example, this is understood as the actual volume of manufacturing, which can make full use of available resources, as well as the existing productive potential, the availability of inputs, the availability of the complex of defining resources. For an effective approach, in the author's opinion, the following interpretation can be attributed: the productive potential is the systemic unit of fixed assets, production personnel, and production areas. In general, the economic efficiency approach provides a more comprehensive picture of productive potential. On the other hand, it is necessary to recognize the existence of interpretations aimed at the vision of the efficient use of resources to achieve productive potential.

Indeed, in my view, it is difficult to stick to one of the two identified directions, because we cannot deny either the importance of the resources, the optimal combination of which leads to the outcome, or the importance of the result which characterizes the level of efficiency of the productive potential. Therefore, in the thesis, the production potential is seen as the complex of the enterprise resources used for the efficient functioning of the operational process.

It should be understood that the productive potential of industry subjects does not exist in isolation, it regularly interacts with the external environment (suppliers, customers, government, etc.), it is part of the industry and the economic potential of the country. Therefore, as Pinto J. (2017) notes, a modern economy can only function effectively if it makes the best use of existing enterprise capabilities and is oriented towards forecasting future trends.

Referring to the methodological aspects of assessing productive potential, it is interesting to analyze the existing perspectives in science on its components.

The scientist Ionescu V. (2010) points out that the productive potential of the enterprise depends on the quantity and quality of available resources, the number, qualification, and competence of employees, insurance with fixed and current assets, the level of stocks, the importance of non-material resources, the ability of the enterprise to renew manufactured production, the change of management structure and the perception of innovation. Based on these characteristics, the productive potential appears as a combination of the economic opportunities of the enterprise.

3. Research methodology

The research methodology has an analytical character and mainly it is focused on specialized literature research based on the use of theoretical analysis methods: abstract and logical, economic-statistical, structural and functional, constructive. In the process of research, methods of systemic analysis, as well as methods of economic analysis were used.

4. Results

Thus, during the study, we identified some unresolved issues in the field of assessing productive potential. Firstly, the listed components of the potential are not sufficient to characterize it in a situation of uncertainty. Secondly, approaches to financial analysis are not transparent, but productive potential needs to be measured. We can agree with the dominant view of the difference in assessing its real potential and level of use. It is, therefore necessary to propose a methodology for calculating the size and level of use of the productive potential of an industrial undertaking operating under uncertain conditions. In the author's view, the characteristic of productive potential should also be the ability of the undertaking to react to changes in the external environment and the ability to consolidate itself in the outlets in the event of negative results of uncertainty.

The proposed method shall take into account not only the usability of the separate components of the productive potential but also the degree of development of the potential element, which is used in contrast to the cost characteristics as a measure of the potential size. Also, we consider it necessary to distinguish the following components of productive potential:

- investment and innovation, encompassing the company's ability to maintain the current situation and strategic development and includes financial opportunities, the potential of scientific and technological skills, increasing the competitiveness of products;
- the organization of human resources, which includes the existing human resources and the administrative resources of the enterprise, allowing the development of the necessary structure of business relations and processes;
- marketing and sales, which is responsible for adapting the supply of products to market requirements and reducing information uncertainty, and increasing operational efficiency by researching the directions of development of competitive advantages;
- informational and technological, which reinforces the vision of the potential of funds and information potential, as information and communication tools, as the basic equipment can be attributed to the funds of productive potential.

Thus, the logic of the proposed division is based on the ability to see in the productive potential the parties responsible for development, structure, adaptation, and reaction for the content of the funds.

5. Conclusions

In conclusion, as a result of the use of opinion polls carried out in industrial enterprises, it was found that policies must be implemented to help create and support this long-term research ecosystem, as well as ensure access to medicines for patients who sustainable need them in a way for health systems today and tomorrow.

The operational strategy must take into account the current state of productive potential and the level and type of uncertainty, propose changes that will lead to the formation of future productive potential that will maintain or increase the competitiveness of the pharmaceutical industry. In the research, several unresolved issues in the field of productive potential assessment were identified. Firstly, the listed components of the potential are not sufficient to characterize it in a situation of uncertainty. Secondly, the approaches to financial analysis are not transparent, but the productive potential must be measured. We believe that by working together and sitting together around the table, after COVID, Europe can achieve both ambitions.

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Uncertainty of Successive Existential Risks of Case-effect Type Economic Pandemia and Crisis, in Progress of Activities in the Pharmaceutical Industry

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Abstract

Uncertainty and risk can be seen as interdisciplinary phenomena. At the same time, the uncertainty and the risk of the rule are taken into account in the context of the analysis of decision-making processes. Under uncertainty and risk, an enterprise needs to have a rational basis for decision-making that allows the comparison of different alternatives and the choice of the most appropriate operating strategy in the management of pharmaceutical companies
In today's economy, with the growth of information flows, there is an objective need to continuously increase employees' skills, an increase in the number of modernization projects, which will reduce labor and material consumption, the development of industrial marketing tools and increased operational efficiency. The pharmaceutical industry needs flexibility like no other industry, which will make rapid reconstruction possible. The purpose of this paper is to identify the importance of digitization for the pharmaceutical industry.

Key words: strategy, pandemic, management, pharmaceutical industry, risk.
J.E.L. classification: I2

1. Introduction

The Covid-19 pandemic changed our normal lifestyle. It has affected both the economy and democratic freedoms and thus – the rule of law. Exceptional measures put a tension between the common interest and individual freedom and have a considerable economic impact. We therefore wonder what the impact of the pandemic is on the pharmaceutical industry.

The changes in socio-economic life, related to modernization and technocracy, which began in the second half of the 20th century, certainly had an impact on production. In any economic system, including industrial ones, managerial decisions are made. The new decision-making circumstances that constantly arise lead to the emergence of several development alternatives and significantly complicate the development of the operational strategy.

As mentioned above, the phenomenon of uncertainty has been studied for quite a long time in economic theory and represents a separate direction of research. Uncertainty is an important factor in economic relations, which dictates the need to use different methods of forecasting and reducing the degree of risk. Risk systematization allows the development of the necessary management tools. Many of the classifications, in our view, are excessively detailed, while it is extremely important to consider only those risks that lead to the loss of planned revenues. It should be born in mind that uncertainty increases exponentially as the supposed time event is eliminated. Therefore, the selection of an operational strategy relating to a long period of time requires closer examination of the uncertainty factor

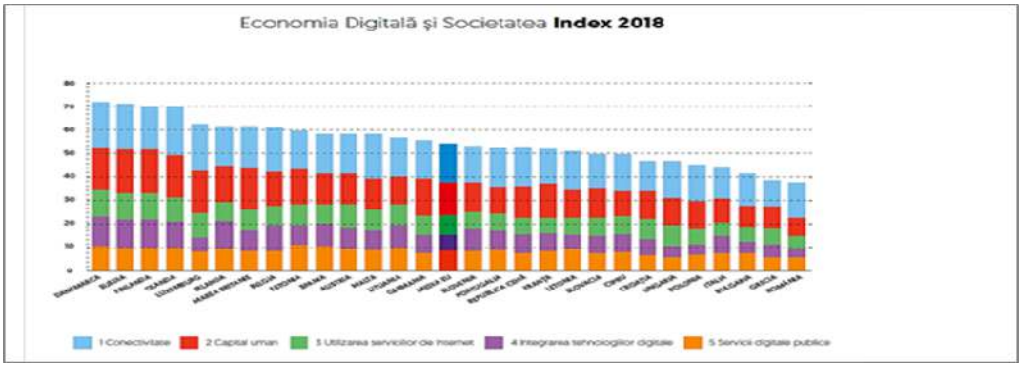
Under the influence of the dynamic transformations taking place in the post-industrial economy, the uncertainty of the external environment is also changing, and independent and discrete changes that are not interconnected have begun to turn into systemic ones. Thus, in a continuous flow there are economic constraints, namely cost reduction, optimization of consumption, increased complexity of products, new technologies, globalization, communication, increase in sales volume,

opening up new emerging markets, lack of specialized workforce, which have contributed for the industrial environment to react and seek solutions that solve the above mentioned problems. Each new transformation leads to a change in the remaining components of economic relations. As Khana R.B. noted, the average life cycle of goods decreased compared to the mid-20th century, from three to four decades to three or five years.

2. Theoretical background

Information and uncertainties are considered by many researchers as mutually exclusive components. Consequently, the increase in the share of organizations using global information networks indicates greater management of uncertainty in the Romanian and Moldovan business environment. The growing demand for information services demonstrates an increase in the uncertainty of economic relations in Romania and the Republic of Moldova. It is also interesting to see the digitization of the economy in the European area, Figure 1.

Figure no. 1. Digitalization index of the economy of EU countries



Source: (Rusu V. et al, 2018)

Unfortunately, according to data submitted by the European Union, Romania ranks last in terms of digitalization. Moreover, most Member States are creating their own structures to ensure the successful implementation of new technologies.

As for the situation in the Republic of Moldova, the Digital Moldova Strategy 2020, approved by Government Decision No. 857 of 31.10.2013, creates the necessary bed, outlines the directions to ensure a systemic development of the field of information and communication technology in the coming years, ensuring the exploitation of the facilities offered by the Information Society for the comfort and well-being of the citizen (Government decision no.857, 2013).

The strategy provides favorable conditions for the development and wide use of ICT potential in all areas: public, private, business and the daily life of citizens. Mobile broadband Internet access with high data transfer speeds becomes accessible throughout the country. Companies have a clear long-term predictability and can invest effectively in network development, and users – enjoy advanced quality services in any corner of the Republic of Moldova.

In recent years, considerable investments have been made in mobile communications services and networks, confirming the thesis that Moldova chooses mobility and access from anywhere.

The increase in the number of users among economic operators can be seen as a consequence of the increase in the number of economic entities and, consequently, the flow of information for the exchange of data. Another reason can be considered an increase in the number of new regulatory documents (National Agency for Medicines and Medical Devices in Romania,2020).

In order to identify the main sources of uncertainty from a business perspective, we have analyzed existing views on their nature. Some scientists such as McConnell P., Iosof S., Gavri T. (Iosof S. et at 2013), believe that uncertainty is generated either by insufficient knowledge of the nature of phenomena and processes or by a lack of information about these phenomena and processes. The author believes that these interpretations need to be supplemented, flashing out the causes that generate uncertainty. In this context, the following types of media can be distinguished,

which can be considered sources of uncertainty:

- the socio-economic environment, in which macro-factors of uncertainty manifest themselves, dictating a certain development of markets and regions, in which the company carries out economic activities (dynamics of macroeconomic indicators, legislative changes, political transformations);
- the scientific and technical environment, the revolutionary changes that can lead to significant operational changes at the enterprise level;
- the political and legal environment, which is the source of legislative acts, which dictate the political conditions for the management of the business and regulations in force;
- the environment of the distribution partners, subject to the activities of the company's partners, economic activity, financial situation, which directly affects their ability to fulfil their obligations;
- the supplier environment, reflecting the future actions of suppliers, including those expressed in the change in terms of supply;
- the competitive environment, including the change in the degree of influence and behavior of competitors;
- the consumer environment, on which the condition, size, dynamics, stability of demand depends;
- the internal environment, which can be considered as a source of conflict, which leads to disturbances, teamwork, which increases the efficiency of the system in which human and technical factors are closely linked together and can produce unpredictable results expressed in the level of product quality. The organization of work within the enterprise depends on the awareness of the state of all these environments.

A study of the management of industrial enterprises was carried out in the research reflected in the thesis. This study was carried out to determine the degree of influence (evidence) of each type of uncertainty on decisions taken when selecting the operational strategy on a 10-point scale. Overall assessment was made by calculating the average of the points indicated by the representatives of all the undertakings interviewed.

As can be seen, the greatest impact on the company's operational decisions is caused by uncertainties generated by the consumer environment.

At the same time, the uncertainty of the internal, political, legal, scientific and technical environment is being analyzed to a lesser extent. In other words, it can be said that entrepreneurs' confidence in the stability of organizational, managerial, technological and other components of the activities of their enterprises can hide the "traps" of inefficiency.

Generalized assessment of the influence of different types of uncertainties on the decision-making process on the operational strategy for the pharmaceutical manufacturing industry and pharmaceutical preparations was carried out.

It can be seen that the smaller the area of the figure in the diagrams, the less the companies in the industry under analysis feel the uncertainty when making decisions on the operational strategy. It seems that the smallest field of uncertainty is a characteristic of the chemical industry and the largest for the manufacturing industry of basic pharmaceutical products and pharmaceutical preparations.

Next, we will briefly introduce the economic aspects of the development of the pharmaceutical industry, in order to find the sources of considerable uncertainty that take place in an administrative decision-making environment. We will then proceed to the description of the method of measuring uncertainty.

As is well known, in Romania, the pharmaceutical industry is one of the most profitable, having a special place in the Romanian economy. During the communist period 1980-1989, in Romania, there was a centralized strategic planning of medicines, their production being divided by regions, for example in Bucharest were produced injectable / infusion spills and vaccines, in Iasi antibiotics, in Cluj solid oral drugs, at Viseu de Sus non-steroidal liquid preparations, at Tg.Mureş ointments. Today the pharmaceutical industry in Romania is sufficiently developed to meet the challenges (National Agency for Medicines and Medical Devices in Romania,2020).

In the year2000, most pharmaceutical factories entered the multinational circuit, which did not close them, but on the contrary, they competed to invest in retrofitting, development, exports. However, due to the lack of a national drug strategy between 2010 and 2014 Romania lost production of 40% of drug production volumes, closed a national institute in the field, closed a

private producer and did not bring a single portfolio investment to Romania.

However, in September 2015 the Government approved the National Competitiveness Strategy 2015-2020, where the pharmaceutical industry is seen as a strategic direction in Romania. Noting that there are, currently various tax, price, regulatory, economic diplomacy barriers that continue to affect the development interest of the industry, according to statistical data, in 2016, Romania had 158 manufacturers of medicines and pharmaceutical preparations and more than 6700 high-rise retailers were officially registered in Romania and medicines worth around EUR 350 million are currently exported. The development of this industry should therefore be systemic and designated as a strategic economic area of national interest (Khana R.B.,2015).

3. Research methodology

In the process of research the methods of systemic analysis, economic-mathematical modeling, mathematical statistics were used, as well as methods of economic analysis. The informational - empirical basis of the research formed -a materials of monographs, articles in and special publications, scientific publications, as well as materials of scientific-practical conferences. Regulatory acts, reports of transport companies, statistical data, art and scientific reports, exhibited on the web pages of scientific centers around the world, were used.

4. Findings

The pharmaceutical industry in Romania is a low-risk sector (as economic theory suggests), playing a role in reducing the amplitude of the business cycle. This conclusion was reached by dividing the Romanian economy into three risk categories (high risk, medium risk and low risk), depending on the sensitivity of an economic sector's activity to the business cycle. On the other hand, the pharmaceutical industry's small contribution to total added value does not allow this leverage to generate major positive results. Creating the conditions for a strong development of the pharmaceutical industry in Romania would also support the counter-cyclical buffers of the economy.

In today's economy, with the growth of information flows, there is an objective need to continuously increase employees' skills, an increase in the number of modernization projects, which will reduce labor and material consumption, the development of industrial marketing tools and increased operational efficiency. The pharmaceutical industry needs flexibility like no other industry, which will make rapid reconstruction possible. Today, 15% of Romania's trade deficit is caused by the pharmaceutical industry, which imports more than 8 billion lei worth of medicines annually but manages to export less than 1 billion. This is because Romanian pharmaceutical companies pay taxes to the Romanian state as much as all other providers of services and goods acting in health pay (McConnell P., 2016). One of the main opportunities to increase flexibility is the more complete use of modern computer technology. A positive development is the attraction in the Romanian pharmaceutical industry of portfolio investors, which would allow the concentration of financial resources for the implementation of new developments, taking into account market requirements in optimal terms.

We will continue trying to describe the uncertainty assessment model. Analysis of existing approaches to risk and uncertainty assessment carried out in the second chapter showed that the main outcome of the assessment is the amount of damage that may occur within the enterprise in the case of exposure to various factors. At the same time, this interpretation, as we see it, does not fully reflect the essence of the concept of "uncertainty". As mentioned above, uncertainty is associated with a lack of information, but uncertain events can have not only a negative result, but also a positive one. The pandemic and the economic crisis, in carrying out activities in the pharmaceutical industry.

The impact of COVID-19 is felt worldwide, with more than 390,000 cases and 37,200 deaths recorded globally by 31 March 2020. Industry biopharmaceuticals in Europe are taking an active role in the fight against COVID-19, joining global efforts to research and develop treatments that could prove valuable weapons in this fight.

The innovative pharmaceutical industry provides financial support and donations of goods to actively involved organizations and works closely with health authorities at European and global level to respond to this global threat of public health.

While governments are implementing appropriate public health measures and health systems are treating or preparing to treat an unprecedented number of patients requiring intensive care, the pharmaceutical industry focuses on three key areas:

-ensure stocks of medicines for patients in need

-support health authorities and systems, at European and global level

-to continuously investigate for vaccines, treatments and diagnostic solutions

The major concern of companies is to secure the necessary stocks for essential medicines in the fight against COVID-19. We closely monitor any risk situation regarding the supply of medicines on the Romanian market, through a constant dialogue with member companies and authorities. As the situation evolves, pharmaceutical companies prioritize the continuity of supply chains and work proactively to prevent and alleviate potential shortcomings by coordinating closely with local, European and global authorities. So far, producers have not reported deficiencies or production delays.

In early 2020, when, unfortunately, little attention was still paid to the pandemic generated by the Corona-19 virus, which generated the disease with the symbolic name of COVID-19, the vast majority of security experts considered that the US and China, under the leadership of two nationalist leaders, were at a crossroads, in which the very primary structure of the bilateral relationship was under alarming pressure. It was considered that without bold and creative leadership, the world could again become divided into hostile camps, of the kind experienced during the Cold War. A relatively disadvantaged Washington and a cautious-combative Beijing began 2020 in a mutual lack of trust, generated by the pressures of trade confrontations that tended to turn into a structured rivalry that could shape the global balance of power.

Thus, Romania will be able to benefit, through several priority policies, from funds that can be used to support the digitalization of the pharmaceutical industry and public administration. In this respect, the Romanian Government has approved, by an emergency ordinance, some measures for the elaboration of the National Recovery and Resilience Plan, through which funds will be accessed through the abovementioned Recovery and Resilience Mechanism. Digitalization. Thus it becomes a key element of this plan, supported by digital transformation projects, including through the automation of the pharmaceutical industry and services central and local government and future investments in infrastructure, interoperability, standardization and other digital transformation tools. The Authority for the Digitalization of Romania and the public authorities developing digitalization projects will play a key role in the transition to digital governance, in particular by improving digital services and automation. Implementing process automation has many advantages, such as increasing productivity and quality of results or reducing human costs and errors. The ADR, established in 2020 to achieve national digital transformation targets, plans to implement solutions for electronic identity projects, interoperability, government cloud, as well as to develop the national strategy for artificial intelligence.

In terms of the digitalization index, the European Commission's Digital Economy and Society Index (DESI) reports put Romania in the ante-penultimate position in the EU Member States in terms of the digital economy and society in 2020, while recording the lowest performance in EU countries in providing digital public services. It is therefore necessary that the funds that will be available for Romania in the coming years, in particular, programs that will facilitate citizens' access to digital public services should be implemented.

Thus, constant cooperation and dialogue between public authorities responsible for the coordination and management of national digital transformation and representatives of the private environment are essential factors in supporting the digitization of the economy and society. Romania is a real innovation center in technology, as well as a pole of interest for private actors, investors and start-ups in this field.

However, even as the digitization of the private environment progresses, the COVID-19 pandemic has shown that public administration must make substantial investments and changes in order to be able to provide digital public services and facilitate the system. Therefore, the digital transition, in response to the pandemic, will also lead to an increase in the quality of the citizens"

life, by simplifying the administrative procedures they must follow, by making access to information more efficiently and by optimizing their day-to-day work, whether we are talking about remote work, digital education or online payment of taxes.

5. Conclusions

To sum up, we assume that the probability of a positive and negative result may be different. There are all the prerequisites to divide uncertainty into positive and negative. In order to attribute a situation in which the operational strategy is developed, to one or another variant of uncertainty, it is necessary to analyze all possible consequences that may arise in the environments of uncertainty and to study possible results and the likelihood of their occurrence. At the same time, by result, we understand the degree of achievement of the objectives set out in the operational strategy in this case.

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The Future Sale of Premier League Broadcasting Rights

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Abstract

The Premier League is the most important national competition, of the most popular sport in the world, in the country where the rules of this sport were first codified: England. The interest generated for this competition has meant that over time, more precisely in the last 30 years, with the emergence of the concept of pay-per-view transmissions, this competition has acquired a completely different global importance. Therefore, the revenues from the television rights obtained by this competition are the highest of all football championships. In an increasingly digitalized world, the question arises as to how the revenues from television rights obtained by the Premier League can be increased. The purpose of this article is to anticipate how the sale of TV rights will evolve globally.

Key words: The Premier League, pay-per-view transmissions, TV rights, direct-to-consumer (D2C), over-the-top service (OTT)
J.E.L. classification: L83, Z20, Z23, Z29

1. Introduction

A small piece of sporting history was made on the 3rd of December 2019 when PL matches were shown in the UK exclusively live on the legal digital stream for the first time.

Amazon has paid about 90 million pounds to show twenty games each season for three years on Prime Video. They kept things simple and familiar deploying dozens of well-known and dependable anchors pundits and commentators for their opening set of matches.

Inevitably there were some problems, with some viewers reporting intermittent feeds and lagging issues, but it was largely smooth and when Amazon later announced record sign-ups and millions of viewers hugely significant.

2. Literature review

For many years now England`s Football Championship called The Premier League (PL) had been the sports competition that has generated the highest income for its stakeholders. Thus, many authors have tried to understand how is it possible that one single national football league can generate more income than the other 4 big leagues (Spain, Italy, Germany and France) combined. Yet the past it not as important as the future that lies ahead of PL`s distribution of broadcasting rights income source. Thus, there are few authors that have suggested carefully looking into this matter and even less that have suggested an academic approach. The current article aims to take into consideration both the past and the future of PL broadcasting rights as shown by various authors (Gortazar, Milne, Ingle etc.) and project them with a new idea of an OTT service.

3. Research methodology

The future football broadcasting is digital, of that there is little doubt. Thus, the main questions are:

1. How rapid will the transformation be?
2. Who will be the biggest winners? Will tech firms become major rights holds?

3. If the PL launch over-the-top (OTT) service, streaming direct to fans and keeping all the revenues, can they cut out traditional broadcasters?

4. Or will the paying customer be the main beneficiary?

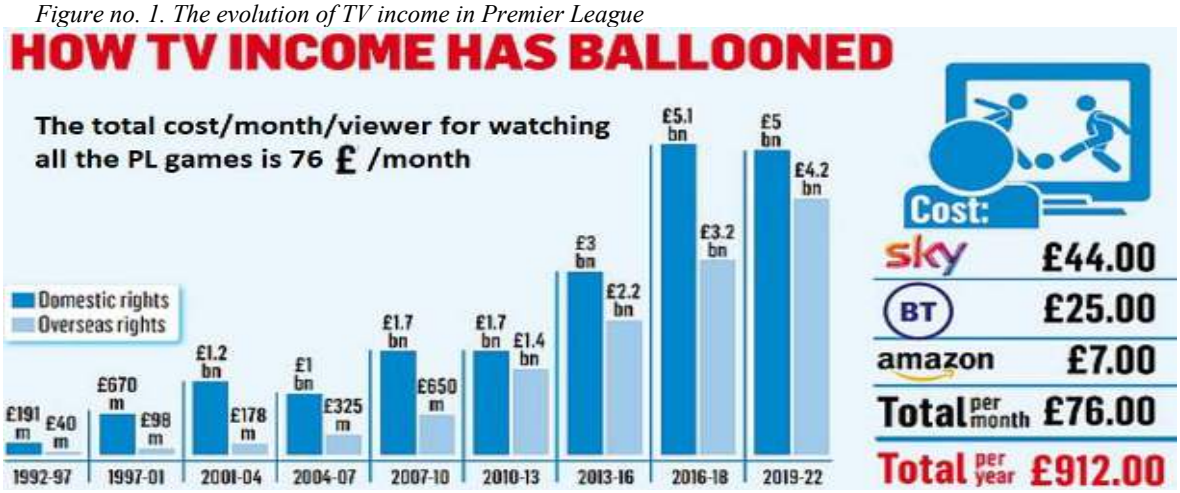
The current article aims to underline the evolution of PL broadcasting rights and to project them over the future using a qualitative and a quantitative approach. Based on analyzing its past with content analysis over its income statements and projecting its future with a clear calculation of its potential, the article will determine the importance of a direct-to-consumer (D2C) approach that PL needs in order to further boost its main income source.

4. History of the selling of PL broadcasting rights

At the beginning of the third decade of the 21st century the PL continues to enjoy growth in broadcasting income that has been simply staggering since the revamped top division began in 1992-1993.

The first five-year TV deal from 1992 to 1997 was worth 50.7 million pounds/year for domestic live rights highlights and all foreign rights combined. Foreign rights were worth 40 million in total for first five years or 8 million pounds a year. (Gortazar, 2012, p.3) Now in the current 2019-2022 cycle the total rights income has grown to 9.2 billion pounds of which 4.2 billion comes from foreign rights. That 3 billion pounds a year in broadcasting income this season, 2019-2020 will translate into the average PL club earning around 135 million pounds/year from central PL funds alone at the end of each season, before a ticket or replica short is sold, before any kit supply or sponsorship deal is done before any other income from European competition or the domestic cups is added.

Figure no. 1. The evolution of TV income in Premier League



Source: (Harris, 2020, p.2)

Yet that broadcasting income could conceivably be higher.

As things stand there are roughly 200 million people around the world paying significantly sums to pay TV operators for access to channels that provide them with PL football. In many if not all cases, the PL is the big draw. In the UK SKY have around 6 million subscribers who typically pay 45 pounds a month upwards for packages including the sports channels. BT sports have almost 2 million customers. It isn't known how many Amazon Prime subscribers (of 15 million in the UK) signed up for PL football but Amazon say that large numbers did.

On top of the 200 million worldwide who have access to the PL via pay-per-view, hundreds of millions more watch on free terrestrial platforms. If anyone in UK wants to access the three broadcasters who together now show all of the 200 PL live games this season, the cheapest deals cost around 907 pounds per year or 76 pounds a month.

5. The need for a unique streaming service

For demonstration purposes most of the reports suggest that there will be a dedicated PL channel called *PremFlix.* It would have a vast archive of more than 16000 hours of all 11000 PL matches since 1992. A searchable clip database to access more than 28000 goals and supporting bank of magazine shows and previews, interviews and new shows and importantly it provides access to every PL game live on smart TV's tablets phones and laptops. And all of that that would be available for 12 pounds a month. If one subscribes for a year, he/she not will pay 144 pounds, but instead will get a discount and pay 120 pounds.

We can assume that many of the 200 million people currently paying between 15 pounds and 76 pounds a month to watch PL games in Europe, Asia or Africa or the Americas decide to subscribe to PremFlix for 10 pounds a month instead and that others currently not subscribing due to the high prices will soon follow their lead. Imagine that 200 million people sign up to the 10 pounds a month deal. That 3 billion a year in tv broadcasting income for the PL now becomes 24 billion. The average PL team share grows from the 135 million pounds this season to just north of 1 billion pounds club/ per season. Now we shouldn't assume of course the 10 pounds would be the right price point it will almost certainly differ across different markets. Maybe there would be other options, such as paying 2 pounds per individual game, or 5 pounds. People could buy highlight and clips only subscription for half the full price, or they might pay 50 pence to watch the last half an hour of the game still in the balance. The options would be limitless. Choice will be key.

Ultimately the salient point is that potentially by going direct to consumers, the PL could earn significantly more money by giving fans significantly more content for less money. Of course there are still hurdles to overcome currently by selling all rights to external broadcasters the PL is banking guaranteed income and letting those broadcasters around the world produce coverage tailored to their viewers.

If the PL became a global service provider it will need to change to being merely organizer of a competition that oversees 380 football matches each year, into a worldwide broadcasting company that can also build and maintain a complex tech platform that could smoothly serve a whole planet without glitches and deal directly with hundreds of millions of customers in hugely diverse continents languages and cultures.

The PL actually already runs a global TV channel, *PL productions*, which produces studio shows and commentaries in English and is used of the shelf in some rights holding territories. But a truly global PremFlix would need to be not just one channel, but dozens.

PremFlix UK might well be everything required for customers in the British isles and assorted pockets of other markets with the familiar anchors pundits and commentators but PremFlix UK won't necessarily work in America, where PremFlix USA would need to deliver the comfort, continuity and local nuances that NBC have worked so hard to deliver successfully over 4 years of their PL rights stewardship.

Neither will PremFlix UK or US are going to be a big seller across the channel where PremFlix France will need to be in French and be delivered with the same efficiency and attractiveness of Canal+ and RMC with pundits standing at high tables, talking about what the game mean for *les bleus*.

It's possible that a single PremFlix South America would be sufficient for a lot of that continent although PremFlix Brazil would need to be in Portuguese not Spanish and would benefit from the presence of Paulo Andrade currently the figurehead of ESPN Brazil's PL coverage. On and on we could go making a wish list of established local news names who currently deliver the PL product in this country or that, and are currently employed by successful legacy broadcaster and incumbent PL rights holders.

A theoretically successful PremFlix would probably require a wholesale recruitment of many of those hundreds of familiar anchors pundits and commentators. It wouldn't be an impossible task but it would a huge one. While it`s not really feasible to deliver a fully global PremFlix in one go, it`s entirely possible that the PL could start testing its own over the top service in certain territories from 2022. Singapore would perhaps be an ideal location and indeed it was mooted for the current rights cycle before the rights stayed with telecoms firm Singtel for 2019-2022.

Singtel provides a superb example of how having PL content can help a broadcaster grow. Since winning the rights in 2010 subscriber numbers to Singtel's pay TV sports offering have grown from 155000 customers to more than 425000. Singtel pays the PL about 70 million per year for live rights in Singapore and ears almost 175 million annually from those 425000 customers paying 34 pounds a month each. PremFlix Singapore potentially offers the PL the chance to bank the 105 million pounds difference minus the costs.

Rights holders in most places could earn an additional income from selling licenses to pubs clubs hotels and other public viewing spaces such as gyms. Sky in the UK makes around 350 million pounds per year from this alone, on top of the 3.6 billion approximately that make from UK football subscribers. And then there's advertising revenue and sponsorship revenue from particular parts of the programming.

Sky's PL related revenue each year is north of 4 billion pounds and the PL rights costs them 1.193 billion a year. Already the PL is seen in some places via OTT (over the top) services run by third parties. OTT sports firm *DAZN* has the rights currently in Canada, Jamaica and Spain. And *Eleven Sports* has them in Taiwan. Now that Amazon has become the of the tech goliaths to hold PL live rights in the UK the game is really changing.

6. Findings

The next chapter in this story could go one of multiple ways

- The big cable companies could easily afford to offer the PL twice what they currently earn per year from all rights for exclusive global rights to every PL match- that would cost them 6 billion pounds a year, but they are already vast digital firms with marketing and customer service capabilities to match. Such an example can be provided by the company NENT (Stockholm based media group), which has already purchased the TV packages for the countries Denmark, Finland, Norway and Sweden for the next two cycles of PL, respectively 2022-2025 and 2025-2028, so that for the period 2022-2028 will pay the amount of 2 billion pounds. If the amount is divided among the approximately 27 million citizens of these countries, it will result in an average of about 74 pounds / user / 6 years, well below the amount mentioned above. Of course, this calculation is ridiculous, but a more accurate calculation would indicate that if each of the 3 million customers that the company targets will continue to pay their subscriptions of 40-45 pounds / month, the company will get about 8 -9 billion pounds in the same 6-year period.
- One of the tech giants that has huge cash reserves could also buy the whole package of PL TV rights. Amazon has cash reserves of more than 30 billion pounds, Facebook has 40 billion. Apple have 78 billion, Google's parent company has 90 billion, so they could buy the lot, reward the PL handsomely and still make a profit, or they could dabble in some areas and leave others.
- Last but not least, it could implement the direct streaming service on the aforementioned model.

7. Conclusions

The technological advance has allowed distribution through the technology of Over-the-top (OTT) which involves the transfer of data via the Internet, regardless of the telecommunications operator to which the consumer is subscribed. Therefore, only the internet is needed to deliver content, so giants like Netflix, HBO Go, Showtime, Spotify, Amazon Prime or other similar companies have appeared. The Premier League will want to take advantage of this opportunity as soon as possible, although this system of transmitting the product directly to the consumer will increase both the expenses and the financial risks for the most important football championship in the world. In a D2C system (direct-to-consumer model) there are several risks that the platform might not attractive enough for customers, so that all its financial risks are borne directly by the manufacturer.

However current market conditions force the Premier League to take urgent action in this regard as the current revenues of the major English football league could increase as high as 10 times / year.

The Premier League and its stakeholders did not take this opportunity into account in time, so there has been talk for nearly 20 years that the PL bubble is about to burst. In fact, in a digital age handled imaginatively it might barely have started inflating. (Ingle, 2020, p.2)

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The Evolution of Understanding Corruption in Romania and other European Countries

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Abstract

Corruption has left its mark over the way the public and private sector of each country evolves. When it comes to countries that have a socialist past, the liberalization process has its particularities and thus corruption has its own particular forms. The present article aims to share light into the conceptualization of corruption with regards to its practical applications and classifications. The present article will also underline the main forms of corruption that took and continue to take place in the Romanian society.

Keywords: corruption, liberalization, bribery, privatization
J.E.L. classification: K40; K49; P37; P48

1. Introduction

In the last 30 years society has gone more through the process of liberalization regarding economy policies. Lately the enthusiasm has focused on liberalization, while developing the public institutions took on a secondary role. Yet, healthy and strong public institutions don`t stand in the way of free participation in both economic and politic participation, but rather help can help protect it. Where political organizations and civil societies are weak or completely inexistent, officials can abuse power without facing punishment and conflicts in society are less likely to be maintained at a moderate level.

2. Literature review

Political corruption, or the great corruption at the top of the political hierarchy, targets corrupt people responsible for drafting and enforcing legislation and bureaucratic corruption is limited to public administration, considered as the small corruption that citizens experience every day:

- The literature distinguishes between functional and dysfunctional corruption, emphasizing that the low level of corruption "*anoints the mechanisms of bureaucracy*" in the sense that it ensures the functioning of bureaucratic institutions, while the high level of corruption produces dysfunctions in political, economic, social activities etc. (Harris, 2010, p.24)
- Internationally, the issue of corruption is treated interdisciplinary and not just from the criminal law point of view, bun from a social, economic and managerial point of view also. (Andrei, 2008, p.14)

The Romanian literature insists in presenting corruption from a prevention and sanction point of view, underling the fight against corruption that the public system had to take in the last 30 years. Many Romanian authors (Johnston, Nicolae, Parlagi, Sabău and many others) underline the importance of understanding corruption from both a legal point of view, but mostly from a managerial point of view, they insist on preventing and fighting this phenomenon using risk management tools.

3. Research methodology

Literature review represents a key starting point of the current article, that proposes to underline the struggle of different authors to understand the concept of corruption. The main research question of the current article is „*What are the main marks evolution has left in understanding the corruption phenomenon in Romania but also in the European culture in general?*" In order to respond to this research question the article will at first define the concept of corruption from different point of view, and then it will try to sort out the definitions into different categories. Last but not least, the article will underline the main forms of corruption in some main European countries, but also the ones that have shaped the Romanian society. This qualitative analysis using comparative law analysis and also document analysis will help readers understand the evolution of the complexity of this concept, in its European understanding.

4. Defining corruption

The Romanian dictionary defines corruption as: "*a state of deviation from morality, from honor, from duty".* Defining corruption is not universal as legal procedures don`t apply to all societies. Specialists in the field have defined corruption in close connection with the field of activity to which is related to, and sometimes this concept has been defined evasively and ambiguously. (Andrei, 2008, p.34)

Thus:

- **From the criminal systems point of view** the definition of corruption is treated by the specialists in the field under normative aspect and defined *as "those illegal deeds and acts committed by those who hold political, administrative, judicial power, etc."* (Johnston, 2007, p.57)
- **In terms of operationalizing** the concept of corruption for analytical and practical purposes, empirical research has defined corruption as a variety of the state-society relationship and has distinguished between political and bureaucratic corruption.

The phenomenon of corruption has constantly eroded the credibility of state institutions and their representatives, producing a serious state of danger if we take into account the fact that a large part of the population has come to consider the corruption as characteristic of some economies, markets, or public policies. Putting the sign of equality between democracy and corruption has been and is an obstacle to the democratization of a society. Corruption has always accompanied any political order, totalitarianism or democracy, past or present, all over the world.

Although it is a concept, not yet very well defined, within the phenomena of corruption are included those actions, omissions or attitudes that do something else, either to violate the rule of law or just to bypass the legal norms of a state.

If we were to use a formula to define corruption, then we could consider that:

$C = M + Dp - R$,

where Dp = discretionary power; R = responsability; C = corruption; M = monopoly position or monopoly (Nicolae, 2010, p.42)

Whether an activity is public, private or non-profit, whether it is an activity carried out in Romania or in any part of the world, corruption can be identified where someone has a monopoly position over a good or service, exercises a discretion regarding its distribution or provision and there is no regulated liability for it, nor is it otherwise held liable for the distribution or provision made.

5. Practical application of definitions of corruption. Classifications

However, such a definition has rather a didactic utility, as any public authority has a certain monopoly position in the field of public services, has public power. Although theoretically it is not discretionary, it often happens to be so, and the legislation establishes the responsibilities of all public authorities, even if in practice these responsibilities, in the case of corruption, are circumvented. Therefore, the given definition is functional only insofar as one's monopoly position, discretion and responsibility are practically assessed. However, in every case of corruption, the corrupt person behaves as if he had a monopoly position, exercises discretionary power and acts as if he had no so-called responsibilities. (Pedrero, 2008, p.71)

The notion of corruption can be understood in various ways. Going into detail and presenting comprehensive studies on the notion of corruption would only be a waste of time from a practical point of view. In order to have a functional tool in the pragmatic approach to corruption and, in particular, to combat and prevent it, a general definition is sufficient.

In principle, corruption in public administration could be understood as the misappropriation of public office for private purposes.

The forms of corruption are:

- taking and receiving bribe
- influence peddling
- nepotism
- fraud and forgery
- receiving improper benefits (undisclosed earnings)
- embezzlement

Although corruption mainly appears as the prerogative of the civil service, it also manifests itself in the private sector. In reality, the private sector is involved in most cases of corruption of public authorities. Especially in the weaker institutional framework, the unbalanced growth of political and economic opportunities allows one of the dominant groups of these two spheres to exploit the other.

The problem raised by these relations is not only the differences between a lower degree of corruption and a more pronounced one. Thus, it is considered that the state and the tendencies at the level of participation and institutions influence the types of corruption we encounter, namely, the participants, the relations between them, the things at stake as well as the implications.

Looking for corruption syndromes means asking ourselves what underlying development processes and issues can indicate corruption in a society. Samuel P. Hungtington suggested that in situations where economic opportunities outnumber political ones, ambitious people use wealth to gain power. On the contrary, where there are more political and less economic opportunities, power is used by people to get rich. (Sabău *et al*, 2011, p.40)

The types of political and economic systems, as well as the levels of institutional power tend to correspond to patterns identified by four corruption syndromes. These are:

A. Influence Market corruption - occurs in consolidated democracies with strong institutions, where the market cannot be directly affected, but through the exercise of indirect influences on its members (private interests represented through lobbyists and legislative staff)

B. Elite Cartel corruption - it develops mainly in new or reforming democracies that have new liberalized markets and only moderately strong institutions. Corruption exists but is mostly controlled thorough elites in business, politics, the military and the media. Even though the economy might be liberalized, there is resistance to new participants and the sharing of influence and wealth.

C. Oligarchs and Clans - In some societies, political and economic liberalization, which are simultaneous if not embedded forms of political/economic transition, and the insecure boundaries between the public and private sectors have led to a wide variety of opportunities in weak public institutions. The dominant form of corruption in this case will be a disorderly, sometimes violent, struggle between competing elites who seek to use their personal resources to gain both material benefits and political influence.

D. Official mogul corruption - exists in authoritarian states with dysfunctional markets, and weak official institutions where there is an enrichment of family and friends of the leaders, as well as pervasive bribery and extortion at all levels. Unlike oligarch and clan situations where there is unclear who is in charge of the state, in this case of corruption, power is monopolized by an individual.

6. Findings. Corruption in Romania and other countries

In post-communist Romania, corruption was the shortest path to wealth and power. As we argued in previous chapters, the choice of corruption depends on the dominant institutional context, the type of resources valued by society, the pressures on society and the individual, the opportunities or benefits and the risks or costs perceived by individuals. (Parlagi,1999, p.29-30)

Thus, various manifestations of corruption have taken place in our country:

a) fictitious settlements - are manifested both in Romania and in other former communist countries such as the Czech Republic or Hungary, where dummy (bogus) companies acted as ticks or leeches with public wealth. Their main modes of operation consisted in: undervaluation of imports and/or declaring them as something other than they were in reality, VAT refunds, export premiums, joint ventures method, etc.

b) non-performing loans - the Romanian state was the majority shareholder in four banks in 1998 (BANCOREX, the Commercial Romanian Bank (BCR), The Romanian Bank for Development (BRD) and The Agricultural Bank). BANCOREX and the Agricultural Bank were the worst managed due to the corruption of officials. Depositors' money were often granted as loans to individuals (natural or legal) who did not meet the criteria for lending and / or had no intention of ever repaying them. Thus, the banks were the ones that suffered and as a result the Romanian state as the majority shareholder. These banks went bankrupt (these two, and the others, respectively BCR and BRD, who were to be privatized later). Another illegal method of operating in the Romanian banking system was to favor customers who benefited from substantial advantages by buying currency at a lower exchange rate.

c) privatization - it is the main method by which the former socialist technocrats were enriched not only in Romania but in all the states that went through the process through which property was transferred from the hands of the state to private interests. It is estimated that over 50,000 medium and large enterprises were subjected to this process in transition states in Central and Eastern Europe and this only in the early 90's. In Romania the main method of operation was the purchase of socialist enterprises by their former managers through their own companies or through intermediaries. In fact, from AVAS statistics in Romania (AVAS – the National Romanian Authority of Administration of State Assets), over 95% of the privatization contracts were concluded with companies represented by Romanian capital.

d) bribery - last but not least, bribery is the method by which the share capital (share capital referring to the position in the hierarchy) is transformed into economic capital. Public procurement, the issuance of agreements and licenses, the granting of loans (as we can intuit from the presentation of the Bancorex case), access to education, access to the health service, the exercise of legitimate violence by the police, even justice itself are all subjects to bribery activities. and can all be found in a country after the fall of communism.

However, not only Romania is a model in terms of all forms of corruption that have found application in society. Given the models of corruption exemplified above, we can refer to the following bribery legal incriminations in different states, as bribery is the main form of corruption that can be found in each country:

- In Romania, bribery is punishable by imprisonment for no less than 3 years and no more than 12 years.

- In Finland, bribery is punishable by imprisonment for up to 2 years or a fine (there is also a "serious bribe" for which the sentence can be up to 4 years)

- In Sweden as in the previous case, bribery is punishable by imprisonment for up to 2 years or a fine ("aggravation" up to 6 years)

- In Spain "corruption" (including bribery) is punishable by 2 to 6 years in prison

- In the Netherlands there are two types of bribery offenses, one involving the civil servant has a penalty of up to 4 years imprisonment.

- In Hungary bribery is punishable in imprisonment just like in the Netherlands with two types of indictment, one for the economic sector and one for acts involving the civil servant. In the second case, the incrimination of the deed is punishable by imprisonment from 1 to 5 years.

- In Germany corruption has been regulated in detail, with German criminal law distinguishing between active and passive corruption, but also between public and private sector corruption. The worst offender is the one implicated in active corruption in the public sector, namely bribery of the civil servant (for example). This is considered having "*particularly serious consequences*" (thus constituting an aggravating form of crime) and is punishable by imprisonment from 1 to 10 years. The other forms of corruption are punishable by imprisonment from 6 months to 5 years.

- The USA cannot be considered as a valid model for this study as it presents a whole series of obvious differences from the countries mentioned above, the main one being the legal cumulation of sentences (for example: 3 sentences of 3 years imprisonment = 9 years) to the various incriminations

that each state carries out in its anti-corruption policy. However, at the national level, there is an incrimination regarding the crimes committed by federal officials, which can lead to up to 15 years in prison for those who are guilty of bribery.

- In Italy the act of corruption of the administrative official is punishable by imprisonment from 3 to 8 years.

With regards to those mentioned above, in the category of countries with the type of corruption called the "market of influence" type, we can include Finland, Sweden, the Netherlands and Germany. However, in the case of Germany, it should be mentioned that it is the "newest" among the states with a phenomenon of corruption of this type, because of its Eastern Germany socialistic past, it was part of the category of states whose corruption is "elite cartel" type. In the category of "elite cartel corruption" countries we therefore include Romania, Hungary, Spain and even Italy, although the last case, it is a special case, in which there are also "oligarchs and clans" corruption influences.

7. Conclusions

Bribery and influence peddling have been the main criminal offences stipulated by the Romanian Criminal Code, as corruption activities. However, corruption is a wide concept which also includes offences such as abuse of power or other activities that see the misuse or mismanagement of public power and state assets for personal gain. This leads to a series of crimes that can result to active and passive corruption, and when generalized gets widespread through an entire public system can lead to failure of an entire public system. Thus, not only the public system can be subject to forms of corruption, as the private sector might be even more opened to criminal activities of such. Romania remains a place where manifestations of corruption have taken most of the public assets of this country, and is a clear example of how a country can lose its own natural resources as a result of corruption.

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The Judicial System Reform and the Fight Against Corruption in Romania

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Abstract

The reform of the judicial system in Romania had a main component oriented to the fight against corruption. This conduct played an important part in the development of the Romanian economy in the post-communist era, leaving important scares over the countries budget. The present article aims to underline the efforts taken in the last 13 years so that the Romanian judicial system can improve its fight against corruption starting from within, but also with the corruption in the Romanian public authorities.

Key words: judicial system, corruption, anti-corruption national strategy
J.E.L. classification: K40; K49; P37

1. Introduction

Judicial system reform needs to help ease the process of fighting corruption. While this might seem easy to understand as a principle, the actual efforts into putting this into practice mean a coordinated effort on behalf of: EU authorities and Romanian authorities (legislative, executive and judicial powers). Romania had to adopt measures in order to prove it can be capable in raising its standards when it comes to fighting corruption. The Cooperation and Verification Mechanism (M.C.V) had to play its part in this European effort to help evaluate Romanians judicial reforms. In the past 15 years Romanian Governments have adapted and included in their public policies a judicial component as well.

2. Theoretical background

The Government of Romania together with the European Union prepared a report on the reform in public administration and justice, a project that evaluated in May 2013 the results of the National Reference Strategy 2007-2013. We must first distinguish between judicial reform and the fight against corruption. Thus, the process of Romania's accession to the European Union also involved the establishment of the Cooperation and Verification Mechanism (en. CVM, ro. MCV) meant to ensure the monitoring of these 2 key areas. The CVM therefore has two sections dedicated to judicial reform and the fight against corruption. (The Romanian Anticorruption Strategy, 2012, p.11)

Corruption represents thus one of the main fields of reform in the Romanian society after de communist regime, due to the fact that all eastern European countries have experienced high difficulties in handling the greed of public officers, especially the ones that are given the highest power attributes. (Andrei, 2008, p.14)

3. Research methodology

The present article begins with the presentation of the first efforts of the Romanian authorities in their quest in fighting corruption. Thus, the research question that can be made was: "*How has the Romanian fight against corruption process developed under de guidance of the European Commission and what are the strengths and the liabilities of the current Romanian Public System*?"

Starting from the research question stated above, the present article will define the state of the public administration reform in Romania, identifying the key areas of reform in the field of both legislative and executive branches. Using legislative document analysis the article will underline the main areas where Romanian authorities have and need to strengthen their administrative capacities in their quest to fight corruption. Finally, the system of anti-corruption policies (present or future) will be evaluated with the help of a S.W.O.T. analysis.

4. Defining the state of public administration reform in Romania

I. In the field of judicial reform at the time of May 2013 were the results grouped into 5 categories:

1) Human resources management in the judiciary- in the field of human resources in the judiciary, the main problem is the undersized and out-of-date staffing schemes in line with the real needs related to the work volume, a problem doubled by the incomplete occupation of existing positions in the system. Consequently, the high degree of work load directly affects the duration of the settlement of cases. The modification of the legal framework by the entry into force of all 4 criminal and civil codes is accompanied by a significant pressure applied to human resources in the judicial system, which amplifies the deficiencies already registered from this point of view.

2) Liability in the judiciary system - the increase of the reputation of the judicial system in front of the Romanian citizens is strictly related to the promotion of the assumption of judicial responsibility, corroborated with the development of precise fast and proactive investigations regarding the disciplinary violations as well as the application of clear and consistent sanctions.

3) Judicial unification and consistency of justice – a defect of the Romanian judicial system is constituted by the non-unitary judicial practice generated by an inconsistent interpretation and application of the legislation. The new procedural codes had the objective of eliminating this shortcoming. A mechanism has been introduced that allows appealing to the High Court of Cassation and Justice for a preliminary ruling as well as a judicial reform provision to support legal practice unification. However, the high number of cases is one of the reasons why the High Court of Cassation and Justice (ICCJ) hasn't proven its new role yet.

4) Human resource management in penitentiaries – There was a huge lack of personnel in the Romanian prison system, especially due to the fact that the prisons are overpopulated.

5) Human resource management in the probation system- with the prisons being overpopulated, there was a need to extend the probation system, having the need of more than a thousand probation counselors.

II. In the field of fighting corruption at that time, until 2013, The National Anticorruption Directorate (from Romania) had some significant results in the indictment of over 4,700 people for corrupt activities and other activities related to corruption. With a successful indictment rate leading to convictions of over 90%, The National Anticorruption Directorate has proven efficiency, with more than a third of its cases being brought to its attention by the National Integrity Agency (ANI). However, the number of corruption cases has seen an increase rate of over 30% between 2011 and 2012, and is since then continuing to grow each year. (The Romanian Anticorruption Strategy, 2012, p.21)

5. Identifying the priorities for strengthening the administrative capacity in Romania

With regards to the field of judicial reform (1) Romania has to:

- create conditions so that High Court of Cassation and Justice can assert its role into promoting the judicial practice unification;
- increase the capacity of the National Magistrate Institute (CSM) into implement an effective process which will help sanction the irregularities of judges and prosecutors and also help deal with the managerial decisions needed to supply the judicial system with the much-needed work force.
- developing vocational training programs oriented mainly to those fields in which the lack of specialized expertise has left its biggest marks;
- developing guides for good practices amongst judicial institutions;

With regards to the fight against corruption (II) Romania has to:

- Develop and disseminate guidelines for the establishment of administrative penalties for cases of corruption, before any criminal case is indicted;
- Help promote ethics and integrity in the public and private sector;
- Develop training programs addressed to the authorities with control attributions in the field of public procurement, with emphasis on those authorities with competences regarding the EU funds (managing authorities and intermediate bodies).

6. Analysis of opportunities to strengthen administrative capacity in Romania

In the last 10 years the Romanian Government (regardless of its political composition) has made serious efforts in the justice field such as:

1) Establishing public policies in the field of justice based on the principles of independence and professionalism;

2) The program of rehabilitation of the legislation that requires the analysis of the entire legislation in Romania, its correlation with the European legislation, the republishing of normative acts and the restriction of the number of normative acts, programs that were realized together with the Government, Parliament and Legislative Council;

3) Implementation of the national anti-corruption strategy.

4) Computerization of the judicial system by applying the computerization strategy adopted jointly by the Ministry of Justice together with the CSM, the ICCJ and the Public Ministry.

At the same time, the Government of Romania identified two types of measures through which it aims to consolidate in the reform of justice, namely:

i) measures in the legislative field:

• Elaboration of a legislation conforming to the European principles regarding the restitution of the properties abusively confiscated by the communist regime.

• Clarification of the status of prosecutors and the role of the Public Ministry in relation to the constitutional provisions.

• Strengthening the rule of law, including by strengthening the institution of the People's Advocate and depoliticizing the Constitutional Court.

• Improving the legislative framework in order to help recover civil damages resulted from criminal activities.

• Implementation of European legislation on extended confiscation, but also of other directives adopted by the EU Council.

• Establishment of a mechanism for appointment into office that ensures a better management of positions within the Public Ministry, a process that is transparent and based on criteria of professionalism and integrity.

• Amendment of national legislation in accordance with the European Convention on Human Rights.

• Implementation of the new civil and criminal Codes as a fundamental objective, as well as the correlation of specific legislation, especially in criminal matters, regarding the execution of imprisonment sentences and criminal administrative sentences (fines).

• Transforming the ICCJ into a cassation court with a main role in standardizing the jurisprudence and creating judicial mechanisms for unifying judicial practice.

ii) measures regarding institutional reorganization:

- increasing logistic support for the Public Ministry (Public Prosecutions Service);
- promoting and developing the free legal assistance system, with most of the Romanians not being aware of their right to free legal assistance;
- increasing transparency regarding the judicial system, especially when it comes to the publication of the data regarding public trials on the internet data base of the courts;
- help developing the CSM and its role into verifying the activity of both prosecutors and judges through the Judicial Inspection Agency.

The Romanian Government has repeatedly stated that "Progress within the CVM" is an essential priority for the European path of Romanian justice.

An important source of corruption has been identified by both the European Commission and ANI in public procurement, with a special focus on EU-funded procurement.
The particular significance of the shortcomings in the field is proved by the serious consequences of which even culminated in the suspension of EU funding. From that in this case, it is necessary to implement a comprehensive action plan designed to protect public procurement of conflicts of interest. (Nicolae, 2010, p.47)

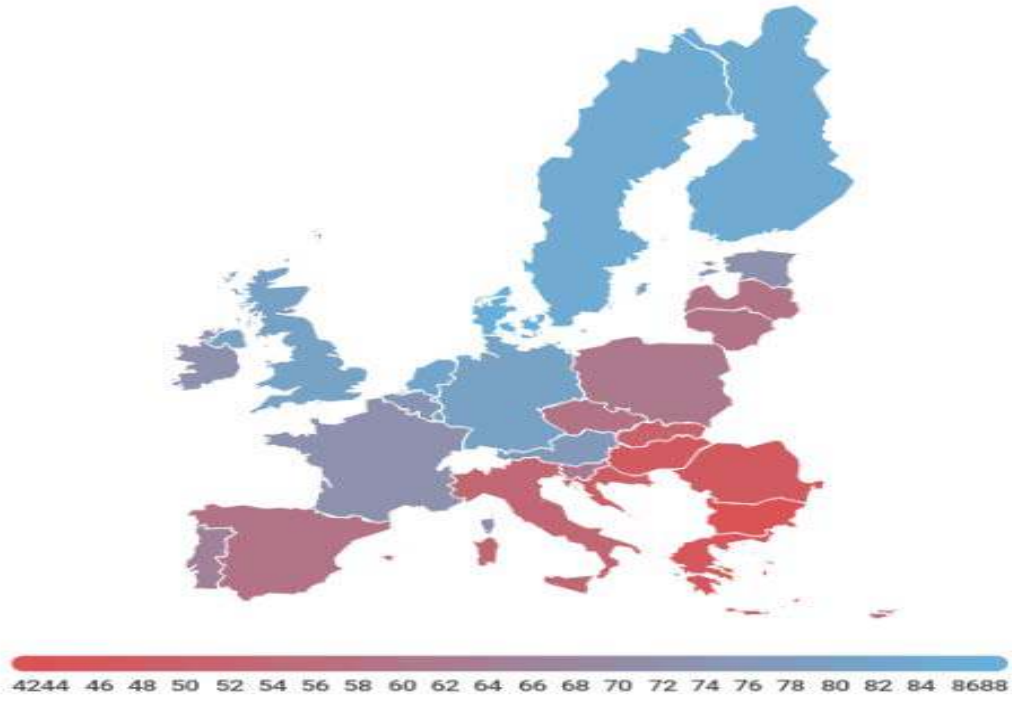
A study according to which over 90% of Romanian politicians would agree to get in touch with a lobbyist knowing his interests, can be compared to over 50% of European politicians who would refuse this from the beginning. From this fact we can draw two conclusions, namely either that Romanian politicians are a special case compared to the rest of Europe and are the most "malleable" when it comes to changing their preferences regarding some policies they support, or we have to deal with a total lack of interest in regulating this area by the Romanian public authorities (namely the Romanian Parliament). (The Romanian Anticorruption Strategy, 2016, p.31)

Although in all western countries lobbying is only a part of the advocacy process and has nothing in common with the phenomenon of corruption, in other words they can even be seen in the mirror, Romania still has serious shortcomings in terms of distinguishing between the two, moreover, the excessive zeal of some prosecutors could even find an indictment (and they have done it more than once) under the form of influence peddling (a legal form of corruption in Romania).

However, despite of the legislative shortcomings of the Romanian Criminal Code, the fight against corruption in Romania has seen more and more public officials being held accountable for their actions.

One of the biggest problems regarding corruption in Romania remains the perception regarding the phenomenon in the public institutions. At the beginning of 2019 a Transparency International report has underlined the fact that Romania still remains one of the most problematic countries in the EU through the eyes of its own citizens. (Transparency International Corruption Index Report, 2018)

Figure no. 1. Corruption perception index in the EU, 2018



Source: (Transparency International Report, 2018)

Thus, the Romanian Government in its latest 2016-2020 National Anticorruption Strategy decided to implement public policies to help:

- reduce with at least 50% the rate of the cases of fraud and corruption in public procurement procedures and integrity incidents in the identified vulnerable institutions;
- raise awareness regarding the fight against corruption and change mentalities of the Romanian citizens in the way the view and are aware of the corruption in the public system;
- implement prevention measures in over 80% of the public institutions and public entities, as part of an integrity developed plan based on risk analysis and internal managerial control standards;
- pun into practice the recommendation of both CVM and other international judicial institutions;
- Romania's accession to the OECD Anti-Bribery Convention (the procedures have been started in this matter in 2019)

7. Findings. Evaluating the evolution of anticorruption policies in Romania

A SWOT analysis could be the best simple tool into evaluating the strengths and weaknesses of the Romanian fight against corruption in the past years:

Table no. 1. SWOT analysis regarding the evolution of anticorruption policies in Romania

STRENGTHS	WEAKNESSES
- the increase of the reputation of the Romanian public judicial institutions fighting corruption; - the increase of results that show the efficiency of anti-corruption institutions such as DNA and ANI; - the coordinated efforts between the Romanian Government and the judicial system;	- high work volume in the judicial system (too many cases/judge or cases/prosecutor) - over-population of prisons; - the laws are subjects to interpretation, thus there is not a unitary justice practice; the justice act is inconsistent; the jurisprudence is almost but useless.
OPPORTUNITIES	**THREATS**
- correlating the national legislative efforts in the fight against corruption and strengthening the administrative capacities in Romania; - increasing the speed of the justice process and reducing its cost, including through modern methods of pre-trial dispute resolution; - implementing anti-corruption preventive measures in public institutions and public enterprises.	- lack of personnel in the judicial system, but also in the; - corruption perception within Romanians; - lack of legislation regarding the lobbying process; - high rate of the cases of fraud and corruption in public procurement procedures and integrity incidents;

Source: Self-processing of data

8. Conclusions

After 30 years of post-communist transition, Romania still finds itself in a place where it needs international guidance when it comes to specific means of fighting corruption. This includes:

- public administration reform oversee and guidance;
- identifying the priorities for strengthening the administrative capacity;
- analysis regarding opportunities to strengthen administrative capacity;
- evaluating the evolution of anticorruption policies.

Yet despite all of the efforts of public authorities in their fight against corruption, the Romanian public remains a pessimistic barometer of the harsh reality.

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When Competitiveness in the Agriculture Sector Becomes Mandatory. Romania Case Study

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Abstract

The current commercial flow of Romanian agricultural products proves the requirement of a new paradigm in making efficient use of land resources. This article aims to assess Romanian agri-food commodities' volume on the world trade market for the latest available period. How good is doing Romania in terms volumes and values of trade, compared to other countries for the agri-food sector? How competitive is Romania in a sector where the country can be the second-largest producer in Central and Eastern Europe? The findings confirm that Romanian mostly export low-value-added products such as wheat, maize, sunflower seed, cigarettes, rapeseed, barley. Considering volumes, Romania ranks far behind its potential both at the European and global level. The results prove that new measures focused on stimulating the sector's competitiveness are mandatory.

Key words: competitiveness; agriculture sector; productivity; Romania.
J.E.L. classification: F14, Q1, L1

1. Introduction

In a world of market forces, "competitiveness" is the crucial concept that delimits economic performance. Competitiveness determines development, growth, expansion, and investment. Policymakers need to assess how competitive their country is in a global market and understand which policies and investments are vital for stimulating the country's competitiveness index.

This paper aims to sound the alarm about the relevance of stimulating competitiveness factors, inclusively for the sectors that already present a competitive advantage through the natural endowments. Specifically, this article reviews the evolution of Romanian exports' global market share for the period 1990-2018, Romania's commercial balance for the agri-food sector in 2018, and it makes a comparative comparison considering the top global agri-food exporters and importers. Although there has been an overall downturn trend in the agriculture sector's contribution to the Gross Domestic Product (GDP), agriculture is still perceived as a "golden sector" with significant untapped potential. Agriculture contribution to GDP decreased from 6.14% in 2009 to 4.1% in 2019. (Statista, 2020)

Romania, with a total area of 238.000 sqm, and 15 million ha of farmland, fertile soil, and a climate favorable for agriculture, horticulture and animal husbandry, is one of the most remarkable countries with an agrarian profile in the European Union. According to the land facts, Romania could be the second-largest agricultural product producer in Central and Eastern Europe, following Poland with 17 million ha of agricultural area.

Agrifood production is a vital segment of total economic competitiveness, and it requires a comprehensive land-use evaluation. Understanding the inland agricultural structure development, producers' actual needs in reaching a higher productivity per ha of farmland to cultivate the most appropriate crops are crucial for the agricultural sector's competitiveness.

2. Literature review

The theory of competitiveness originated in the trade theory of competitive advantage, and it has been intensively explored in the academic literature with two major competing views that emerged in the 1980s and 1990s. Paul Krugman's differentiation of competitiveness is still a good starting point for this concept (Krugman, 1994). It defines two main approaches to characterize competitiveness: (1) cost or ability to export and (2) productivity.

The first approach - "cost/ ability to export," recognizes competitiveness with favorable home country policies and lower labor costs (Brander & Spencer, 1985; Krugman, 1986). The second perspective underlines "productivity" as the driving force of competitiveness and prosperity (Krugman, 1990, 1994; Porter, 1990; Delgado et. al, 2012; Hall & Jones, 1999). The later concept – productivity-based competitiveness- is the most commonly used definition, remaining the decisive indicator for competitiveness and performance.

Krugman (1994) perceived a country's competitiveness as a dangerous obsession, while Porter stated that national productivity is the only concept of competitiveness at the state level. From Porter's perspective, both states and companies should be treated equally, as international trade is not a zero-sum scheme, since states cannot be competitive in all the economic activity branches. (Porter, 1990)

Hall & Jones (1999) introduce the "social infrastructure," an endogenous variable that directly influences a country's productivity level. In the authors' perspective, social infrastructure refers to the institutions and government policies that build the economic environment, where both firms and individuals make investments, share ideas, and produce goods and services.

The international competitiveness concept has been intensively discussed in government reports, research articles, economical press, and books (Kim and Lee, 2013, Crowder and Reganold, 2015, Roger D. Norton et al. 2017, Falciola et al., 2020). The World Economic Forum, the institution which has been continuously measuring countries' competitiveness since 1979, defines it as: "the set of institutions, policies, and factors that determine the level of productivity of a country." (World Economic Forum, 2019) Although there are various definitions for competitiveness, all accepted and valid worldwide, in general, all include the word "productivity."

3. Research methodology

The results of the present paper are based on empirical research using quantitative methods. There have been used two international databases to extract international trade raw data: Food and Agriculture Organization of the United Nations (FAO) and The United Nations Commodity Trade Statistics Database (UN COMTRADE) – Atlas of Economic Complexity 2020.

FAO data is mostly provided by Eurostat, UNSD, and other national authorities. The trade database covers the following variables: export quantity, export value, import quantity, and import value, and it contains all food and agricultural products imported and exported annually by all the countries in the world. In terms of geographical coverage and time, FAO Database covers all the countries globally and covers the period 1961-2018, the data being updated annually.

UN COMTRADE includes detailed imports and exports statistics reported by statistical authorities of approximately 200 countries or areas. It covers the 1962-2018 period (where 2018 is the most recent year) and is considered the most comprehensive trade database available with more than 1 billion records. All raw data from the national authorities are standardized by the UN Statistics Division and then included in UN Comtrade.

For the present research, the author used the 1995-2018 period and year 2018 for a comparative performance perspective of the actual Romanian and global agri-food sector.

The following questions guided the research:

- What is Romania's overall exports evolution in terms of market share, from 1990 to the latest available period?
- What was the volume of Romanian agri-food exports, considering the latest available data? What is the structure of Romanian agri-food exports?

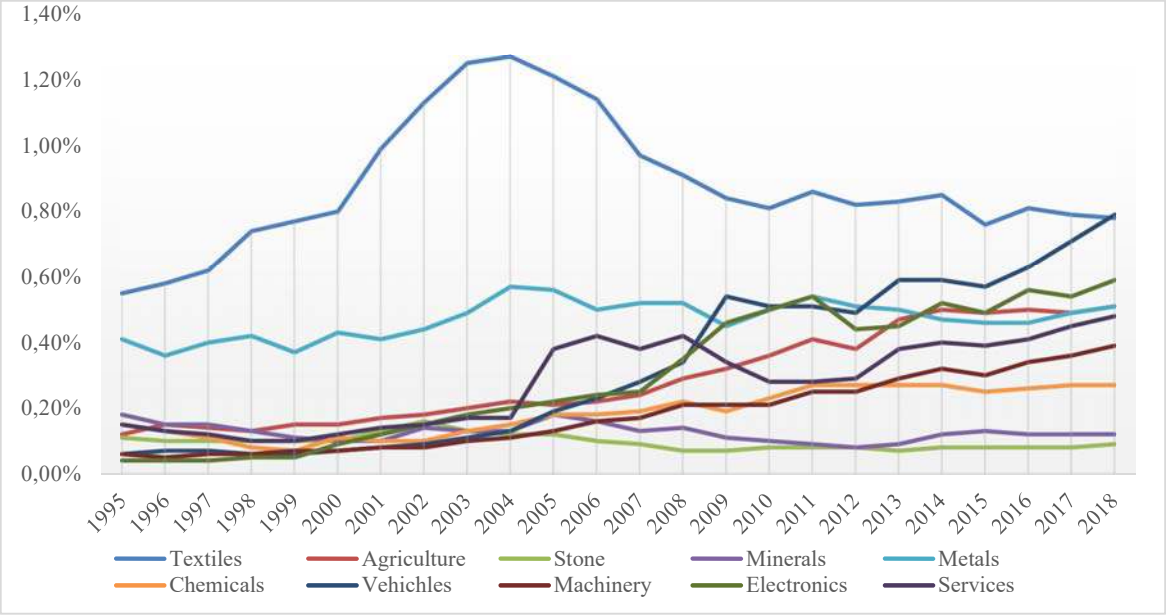
- What was the global volume of agri-food exports, considering the latest available data? What is global agri-food exports' structure, considering the latest available data in terms of products and the largest exporters and importers?
- Which is Romania's rank place in the global export and import for agri-food products?

4. Findings

According to the specialists' estimations, Romania has tremendous potential for the agri-food sector. By 2030, the optimal utilization of land resources in Romania would make it possible to supply the agri-food consumption needs for 38.5 million people for export products and raw materials for non-food consumption of agricultural raw materials of about 49-50 billion €. (Steriu, Otiman, 2013: 60)

Analyzing the general overview of Romanian global exports, as *Figure 1* indicates, for 1995-2018, the Textiles Sector deliberately registered the largest share in the global market, with a top of 1.27% in 2004. Vehicles sectors recorded a steady but growing evolution since 1995, reaching the same market share as the Textile sector in 2018, of 0.79%. The agriculture industry registered a moderate increase from a share of 0.12% in 1995 to 0.51% in 2018. Moreover, the metals industry also recorded a noticeable overall increase in 1995-2018, from 0.41% in 1995 to 0.51% in 2018.

Figure no. 1: Global market share of Romanian exports, (1990-2018)



Source: Author's own computation based on UN COMTRADE Database – Atlas of Economic Complexity (2020)

Analyzing the agricultural sector, despite its extraordinary potential, there is still an enormous gap in Romania's competitiveness. As the latest available statistics show, Romanian agri-food exports' total value in 2018 was 7.2 billion USD. The top 5 exported commodities were accounting 59.4% of the total exports, though the export basket is highly concentrated. Economic wise, such an export basket composition could involve two different approaches. The first one: the country has already specialized and involved in technology investments to using its mostly endowed natural resources – following the Ricardian model. Furthermore, the second one is that there is still untapped potential for the country, and it needs urgent investment in agriculture to become competitive worldwide.

Table no. 1: Top 10 - The structure of agri-food export in Romania, by product, 2018 (thousands USD)

Rank	Commodity	Value (thousand dollars)	% of total agri-food exports
1	Wheat	1,232,666	17.11%
2	Maize	1,035,057	14.37%
3	Sunflower seed	759,632	10.54%
4	Cigarettes	685,105	9.51%
5	Rapeseed	563,014	7.81%
6	Barley	278,102	3.86%
7	Oil, sunflower	191,682	2.66%
8	Food prep nes	185,250	2.57%
9	Meat, chicken	143,207	1.99%
10	Pastry	133,732	1.86%
Total agri-food exports: 7.2 billion USD			

Source: Author's own computation based on FAOSTAT (2020)

Considering that these top exported products are wheat, maize, sunflower seeds, cigarettes, and rapeseed, it can be easily noticed that currently, Romania is exporting principally raw-materials - low-value-added products. Consequently, the manufacturing and the other high value-added activities needed for the raw material to reach the final product and final consumers occur across-border. As the figures indicate, Romania ends its position on the global value chain at the early beginning of the value chain. These commercial flows maintain Romania's position on a low competitiveness level in the global market.

As it can be noticed in Table 1 and Table 2, Romania's trade balance for agri-food products registered a deficit of $1.32 billion. In 2018, the product with the highest imported value was Food prep nes, with a total value of 477.8 million and a share of 5.60% of the total imports. Secondly, comes Meat, pork import with a share of 4.29%, followed by Chocolate products nes (3.81%) and Pastry products (3.34%).

Table no. 2: Top 10 - The structure of agri-food import in Romania, by product, 2018 (thousands USD)

Rank	Commodity	Value (thousand dollars)	% of total agri-food imports
1	Food prep nes	477,308	5.60%
2	Meat, pork	365,741	4.29%
3	Chocolate products nes	324,981	3.81%
4	Pastry	284,517	3.34%
5	Crude materials	269,571	3.16%
6	Cheese, whole cow milk	261,741	3.07%
7	Meat, pig	247,413	2.90%
8	Cake, soybeans	236,194	2.77%
9	Sunflower seed	225,802	2.65%
10	Coffee, roasted	199,554	2.34%
Total agri-food imports: 8.52 billion USD			

Source: Author's own computation based on FAOSTAT (2020)

Worldwide, in 2018 the total value of agri-food exports counted for 1.47 billion USD, while the total value of agri-food imports was 1.63 billion USD. Countries with the most significant value of exports in agri-food products are the United States of America, Netherlands, Brazil, Germany, and China. In contrast, the countries that were mostly importing agri-food products in terms of value are China, the United States of America, China, mainland, Germany, and the Netherlands. See Annex 1- for an agri-food exports worldwide map.

Table no. 3: Top 10 global agri-food exporters by country, 2018

Rank	Country	Exports (%)	Rank	Country	Imports (%)
1	United States of America	9.6%	1	China	9.9%
2	Netherlands	6.6%	2	United States of America	8.3%
3	Brazil	5.6%	3	China, mainland	7.5%
4	Germany	5.3%	4	Germany	5.7%
5	China	4.5%	5	Netherlands	4.1%
6	France	4.5%	6	Japan	3.6%
7	China, mainland	3.5%	7	United Kingdom of Great Britain and Northern Ireland	3.5%
8	Spain	3.4%	8	France	3.5%
9	Italy	3.3%	9	Italy	2.6%
10	Canada	3.0%	10	Belgium	2.3%
40	Romania	0.489%	45	Romania	0.522%

Source: Author 's own computation based on FAOSTAT (2020)

At the European level, the top 5 European countries that mostly export agri-food products are the Netherlands (6.6%), Germany (5.3%), France (4.5%), Spain (3.4%), and Italy (3.3%). Other European countries that are contributing to the global agricultural export are Poland (18th place – 2.1%), United Kingdom (20th place- 1.9%) and Bulgaria (53rd place – 0.3%).

Romania ranks 40th place with a share of 0.48% of the total global agri-food exports. Considering that Romania has one of the most significant agrarian profiles in the European Unions with the possibility of being the second-largest agricultural producer in Central and Eastern Europe, there can be noticed the urgent need for appropriate measures to foster the sector's competitiveness.

5. Conclusions

"Competitiveness" was and still is the main focus on the discussion agenda for governments and institutions worldwide. Although the term itself is not identified with one single definition, competitiveness aims to indicate how well it is performing one economy and the driving success factors.

As a general perspective for the agri-food exports in 2018, the most important international players were The United States, the Netherlands, Brazil, Germany, China, and France. Compared with the top 10 agricultural products exporters, the rank adds Japan and Belgium as top worldwide importers.

The products mostly exported by Romania in 2018 were low value-added items or raw materials: wheat, maize, sunflower seeds, cigarettes, rapeseed, barley. At the opposite pole, the agri-food products mostly imported by Romania in 2018 were: Food prep nes, Meat, pork, Chocolate products nes, Pastry, Crude materials and Cheese, whole cow milk.

Since already several years, Romania is struggling to become more competitive in the international market. Although the country has a significant skilled labor force, agro land, and *willingness* to stimulate its competitiveness, it is still far behind the global competitive agricultural circle. As Romania's case indicates, labor and natural endowment are not enough for a highly competitive country.

Agri-food trade competitiveness is an essential component of total economic competitiveness, and it requires a more in-depth analysis and understanding of how to value the cultivation of the crops with the highest productivity.

Since we live in a continuously changing and uncertain world, competitiveness is an on-going process that includes the appropriate and updated reforms for a sustainable and competitive growth.

6. Acknowledgment

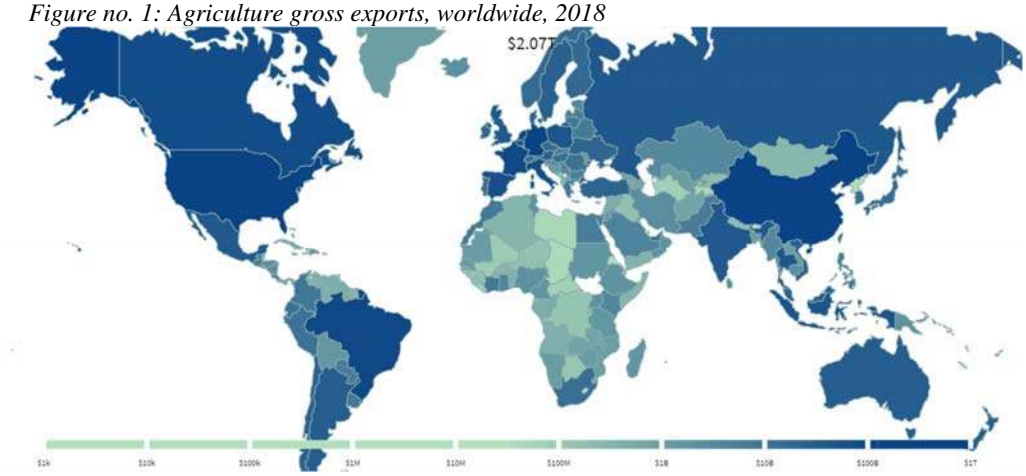
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Appendix

Figure no. 1: Agriculture gross exports, worldwide, 2018



Source: Author's own extraction based on UN COMTRADE Database – Atlas of Economic Complexity (2020)

COVID-19 Impact on the Agriculture Sector and the Power of Clusters. Romania Case Study

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Abstract

This paper yields current understandings about the impact of COVID-19 on overall Romanian' exports, focusing on the agricultural sector. Up to the latest data, the value of exports registers an overall downturn in 2020. Notwithstanding, the agriculture sector seems to maintain 2019 values or even register moderate growth. At the European Union (EU) level, several measures have been implemented to alleviate the pandemic's impact: seasonal workers were recognized as critical workers, there were created "green lanes" to allow the flow of food, the administration was simplified, and there was provided significant financial aid. Being a cluster member certainly involve benefits - gathering knowledge and multi-level competencies. As the qualitative research revealed, the European Cluster members received support and had access to virtual events specially organized for the agricultural producers to overcome the pandemic effects. There is no evidence of such measures at the Romanian level.

Key words: Agriculture, COVID-19, Romania, Agro-based Clusters, Spatial Proximity
J.E.L. classification: Q13, Q17, Q19, C38

1. Introduction

In the year 2020, the COVID-19 pandemic has completely disrupted the world economy and people's lives. The interconnectedness of the global economy and the vital role of the global value chains have been intensively appreciated and discussed during the outbreak when the virus rapidly spread among countries, sectors, and economies.

Likewise, in the health sector, the agricultural industry had to mitigate several challenges during the pandemic. Food safety, food security, and food sustainability are acknowledged as severely affected food systems chains during COVID-19. (Galanakis Charis, 2020) The pandemic's immediate consequences for the agriculture sector were impressive delays in cross-border agricultural transportation, workforce deficit due to limited travel restrictions for seasonal workers, leading to a decrease in production, and a shrink in revenues due to restaurant and cafe's temporary closure.

In line with this, many experts expressed their concern about the food supply, which may run short, mostly when the supply chains are disrupted, while others fear the impact of restricting workers from harvesting and circulate across borders (The United Nations 2020, Glauber Joseph et al., 2020)

Although agriculture has reduced its contribution to the Gross Domestic Product (GDP) in Romania, it remains a significant activity for the rural communities. (Andrei and Popescu, 2014; Ciutacu et al., 2015; Barbu, 2017; Bularca and Toma, 2018; Andrei and Dragoi, 2019;) Also, policymakers perceive agriculture as an essential topic on their agenda, considering new reforms and measures to stimulate the industry to be competitive on the international trade map.

During the research conducted by Nowak and Kaminska (2016) aimed to analyze the agricultural competitiveness of the EU 27 during 2009-2011, the authors concluded an interdependence between the degrees of the competitiveness of the agriculture sector and the development level of the national economy.

The impact of the pandemic on the agricultural sector is still present and also acknowledged by Janusz Wojciechowski, European Commissioner for Agriculture, who stated, "The COVID-19 pandemic has unprecedented consequences for society and the economy. Farmers and every actor in the EU food supply chain work hard to provide us with food daily, despite their difficulties. The European Commission will continue to support farmers and food producers, work with the EU Member States, and take all necessary measures to ensure the health and well-being of European citizens." (European Commission, 2020)

This paper aims to assess Romanian exports' evolution in 2020 compared to 2019, focusing on the agriculture sector. Moreover, the research objective is to evaluate whether companies that are members of European or national clusters receive more incentives and support compares with the companies that are not part of any cluster.

2. Literature review

The first economist who described the cluster's concept in terms of "supply chains" is Alfred Marshall (1920). Marshall analyzed industrial agglomerations around London and concluded that the organizations and companies were interconnected mainly through three factors: labor force, specialized suppliers, and access to knowledge and information. The theory is also known as "The Marshall Triade" (Dan, 2011). Moreover, Marshall concluded that clusters of firms in a specific sector generate involuntary positive economic effects – the so-called externalities.

Since the 1950s, specialists actively debated the concept of a cluster and formed definitions revealing the factors that influence a cluster's efficiency and conducted pro and con discussions to examine the effects that a cluster generates inside a region.

Later on, Janes Jacobs (1961) discussed the role that agglomerations of parts that form up a city have in the economic development, stating that "Cities may fairly be called natural economic generators of diversity, and natural economic incubators of new enterprises."

In 1998, M. Porter defined a cluster as 'concentrations of interconnected companies and institutions in a particular field' (M. Porter, 1998, p.78)

Clusters involve a group of business and non-business enterprises for whom membership within the group is an essential element for each member's individual competitiveness. Clusters involve spatial proximity between their actors and actions, which enables in-person networking, common labor markets, and the transfer of knowledge.

The interest in cluster analysis mostly surged after the influential work of Michael Porter (1990). Most cluster studies performed worldwide use Porter's works as a critical factor for cluster assessment. (Bergman and Feser, 1999) In his work, "The Competitive Advantage of Nations," Michael Porter (Porter M., 1990) has demonstrated that it is not sufficient to interpret only the classical production factors to explain a region or a country's economic success. The economic success is influenced by a dynamic interaction of several factors – known as" Diamond of Porter": demand conditions; firm strategy, structure, and rivalry; factor conditions; related and supported industries. Michael Porter is considered nowadays the "Spiritus Rector" of economic policies based on cluster development. However, at present, Porter's model of national competitiveness is adopted by very few clusters. (Michael Enrights, 2000)

The membership of an organization to a cluster is supposed to receive the following benefits: (1) increased competitiveness and employment rate by connecting people, skills and knowledge; (2) enhanced efficiency due to a network of customers and suppliers; (3) stimulation of innovation; (3) increased power of bargain at national and international level due to large volume addressed; (4) arise opportunity of knowledge transfer.

Innovation is a sine qua non condition of economic success and maintains competitiveness companies globally. Innovation is not a linear process but a complex one based on a dynamic interaction between the principal actors involved in innovative systems. All these considerations lead to the "triple helix" model, which reunite under the umbrella of one cluster representatives from companies (economic part of a cluster), university and research institutes (suppliers of innovative solutions), and local/regional authorities. (Clubul Întreprinzătorului Român, n/a)

Cluster's main objectives can be classified under six main categories: research and networking, political action, commercial cooperation, education and training, innovation and technology, cluster expansion.

At the EU level, the importance of cluster is sustained by the establishment of the European Cluster Observatory, which recognized around 2000 clusters (defined as regional agglomerations) and involved 38% of the union's labor force.

Romania defines a cluster (HG 918:2006 – Impact Program) as a group of producers, users, and/or beneficiaries who gather with the scope of implementing best practices in the EU to stimulate the competitiveness among economic operators.

3. Research methodology

The conclusions of the present article are based on empirical research using both quantitative and qualitative methods.

There have been used the UN Comtrade data - TrendEconomy database, an open data portal based on Statistical Data and Metadata eXchange (SDMX) model and comprises up-to-date yearly and monthly international merchandise trade data. TrendEconomy contains 7241 datasets from 7 different sources: Eurostat, World Bank, International Association of motor vehicles manufactures, UN Comtrade, IMF, BP and OECD and it covers 468 thousand elements from 4061 dimensions.

The qualitative research is based on data review of available reports and studies. The approach was used mainly to compare the incentives obtained by local producers that operate under a cluster umbrella with those which are not part of any cooperative organization.

The following questions guided the research:

- Which was the overall evolution of Romanian exports during 2020, compared to 2019?
- Which were the most important Romanian exported sectors during 2019 and 2020?
- Which are the main Romanian exports by commodity for the agricultural sector in 2019 and 2020?
- Is there any evidence that Romanian agricultural clusters had more benefits than the other companies operating at the national level during the pandemic?

4. Findings

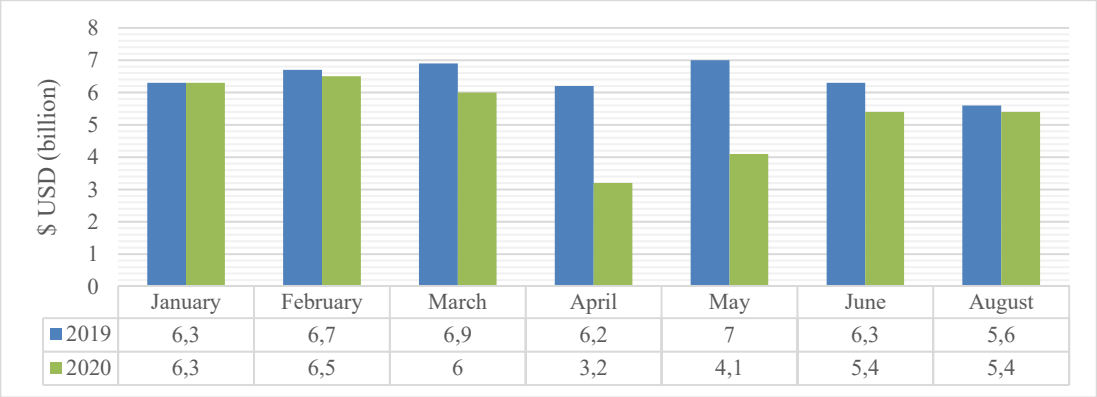
As the main findings indicate, the COVID-19 pandemic has directly influenced the balance of trade, affecting the agricultural sector's performance inclusively - the segment aimed to maintain life on the earth. As a response to the outbreak, several initiatives were implemented at the national and worldwide levels.

Inside the European Union, the authorities' focus was to ensure food availability for EU citizens, support the vital role of farmers and fishers using the resources of the Common Agricultural Policy and European Maritime Fisheries Fund and adopt a coordinated EU response. These objectives were to sustain unprecedented flexibility in the existing programs through direct financial support and an approach orientated towards building resilience. Moreover, to facilitate the food supply across Europe, seasonal workers were recognized as critical workers, and there were created "green lanes" to allow the flow of food, the administration was simplified, and there were fewer on-the-spot checks, temporary derogations from certain EU competition rules, flexibility in-market support programs for some products, reorientation of funding priorities under existing programs, aid for the private storage of dairy and meat products. In terms of financial support, the EU offered up to EUR 200.000 as loans and guarantees, EUR 800.000 for food processing and marketing campaigns, EUR 120.000 per farm, and funds of up to EUR 7000 per farmer and EUR 50.000 per small business. (The European Council, 2020)

As *Figure 1* indicates, although the beginning of 2020 compared to 2019 registered almost the same value of exports, the total value of trade decreased by 18%, from $USD 45 billion in 2019 to $USD 36.9 billion in 2020 for the January-June and August period. When Romania declared more than 1000 cases in March, the export value decreased from $USD 6 billion in March 2020 to $USD 3.2 billion in April 2020. However, in June, the value of exports registered a recovery which continued to August, reaching a value of $USD 5.4 billion. See *Annex-1* for a general perspective

of European exports in 2020 compared to 2019.

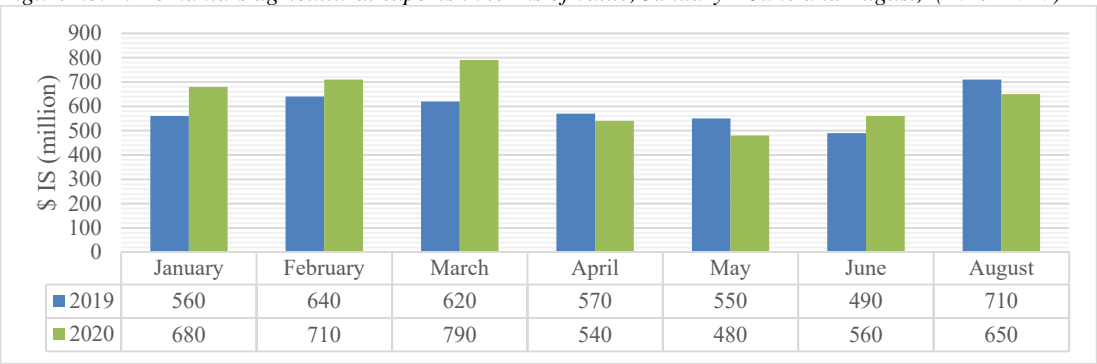
Figure no. 1: Romania's total exports in terms of value, January – June and August, (2019-2020)



Source: Author's own computation based on https://trendeconomy.com/trade (2020)

Despite the overall negative evolution of trade during the pandemic, the agricultural sector exports' value increased by 6.3%, from $USD 4.16 million in 2019 to $USD 4.41 million in 2020 for January-June and August periods. Analyzing the general evolution of agricultural exports during the pandemic, there can be noticed that the lowest value was registered in May - $USD 480 million, decreasing by -39% compared with the previous month. The exports started to bounce back in August, recording an overall value of agricultural exports of $USD 650 million.

Figure no. 2: Romania's agricultural exports in terms of value, January – June and August, (2019-2020)



Source: Author's own computation based on https://trendeconomy.com/trade (2020)

As *Table 1* indicates, the three most vital Romanian export sectors maintained their position both in 2019 and 2020, as follows: Motor vehicles, parts and accessories; Motor cars and other motor vehicles; principally designed for the transport of persons and Insulated wire, cable, and other electric conductors, connector fitted or not; optical fiber cables. The agricultural commodities rank in the 8th and 9th position in the top ten classification: Maize (corn) and Wheat and meslin.

Table no. 1: Top most important commodity group values of Romanian exports in 2019 and 2020***

Rank	Commodity Group Value	Value (2019)* Billion $USD	% of total exports (2019)	Value (2020)** Billion $USD	% of total exports (2020)*
1	Motor vehicles; parts and accessories, of heading no. 8701 to 8705	6.9	8.96%	3.0	8.23%
2	Motor cars and other motor vehicles; principally designed for the transport of persons	5.5	7.08%	2.4	6.61%
3	Insulated wire, cable and other electric conductors, connector fitted or not; optical fibre cables of individually sheathed fibres, whether or not assembled with electric conductors or fitted with connectors	4.0	5.25%	1.8	4.98%

4	Petroleum oils, oils from bituminous minerals, not crude; preparations n.e.s. containing less than 70% petroleum oils, oils from bituminous minerals; these being the basic constituents of the preparations	2.5	3.20%	0,73	2.00%
5	Boards, panels, consoles, desks, cabinets, bases with apparatus of heading no. 8535, 8536 for electricity control and distribution, (other than switching apparatus of heading no. 8517)	2,5	3.17%	1,3	3.45%
6	Seats (not those of heading no. 9402), whether or not convertible into beds and parts thereof	1.9	2.40%	0,76	2.06%
7	New pneumatic tyres, of rubber	1.7	2.16%	0,78	2.12%
8	Maize (corn)	1.4	1.80%	0,74	2.03%
9	Wheat and meslin	1.3	1.65%	0,63	1.71%
10	Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data	1.2	1.57%	0,58	1.58%

**Values for the entire year, 12 months*

***Excluding data for July, September, October, November and December 2020 – data is not available*

Source: Author's own computation based on https://trendeconomy.com/trade (2020)

Table 2 suggests a homogenous character of agricultural commodities both for 2019 and 2020. The top 10 commodities registered 69% of the total agricultural exports in 2019, respectively 71% in 2020. Maize (corn), Wheat and meslin and Sunflower seeds, whether or not broken, were the top exported commodities in 2019 with shares of 17.26%, 15.79%, and 10.49% in 2019. During 2020, the third position was occupied by Cigars, cheroots, cigarillos, and cigarettes; tobacco or tobacco substitutes item, with a share of 11.20%in the total export.

Table no. 2: Romanian top agricultural exports by group of commodity, 2019-2020**

Commodity	Value (2019)* Million $USD	% of total agricultural exports (2019)	Value (2020) ** Million $USD	% of total agricultural exports (2020)**
Maize (corn)	1390.7	17.26%	749.1	16.96%
Wheat and meslin	1272.2	15.79%	632.3	14.31%
Sunflower seeds; whether or not broken	845.1	10.49%	290.8	6.58%
Cigars, cheroots, cigarillos and cigarettes; of tobacco or of tobacco substitutes	742.8	9.22%	494.6	11.20%
Manufactured tobacco and manufactured tobacco substitutes; n.e.s., homogenised or reconstituted tobacco; tobacco extracts, essences	312.5	3.88%	418.3	9.47%
Sheep and goats; live	256.9	3.19%	139.1	3.15%
Barley	207.09	2.57%	128.8	2.92%
Rape or colza seeds; whether or not broken	206.2	2.56%	105,1	2.38%
Sun-flower seed, safflower or cotton-seed oil and their fractions; whether or not refined, but not chemically modified	196.5	2.44%	82,1	1.86%
Bread, pastry, cakes, biscuits, other bakers' wares, whether or not containing cocoa; communion wafers, empty cachets suitable for pharmaceutical use, sealing wafers, rice paper and similar products	191.9	2.38%	109,6	2.48%

**Values for the entire year, 12 months*

***Excluding data for July, September, October, November and December 2020 – data is not available*

Source: Author's own computation based on https://trendeconomy.com/trade (2020)

Analyzing the support received by agricultural producers as a European Agricultural Cluster member, there is evidence of special aid and stimulus received. There were several initiatives organized specially dedicated to agricultural producers during the pandemic period as follows:

(1) SmartAgriHubs positively addressed labor shortages for farms by employing robotics, precision farming, and online matchmaking services throughout the Covid-19 pandemic, securing citizens access to fresh food despite the difficult circumstances. A review of the measures implemented by SmartAgriHubs in France and the United Kingdom can be analyzed at SmartAgriHubs (2020). (The European Commission, 2020)

(2) The European Cluster Collaboration Platform (ECCP) organized special webinars discussing subjects such as Cluster responses to the COVID-19 crisis and digitalization.

(3) The European Cluster Alliance Against Coronavirus – organized over 70 videoconferences connecting over 500 experts, discussing a wide range of COVID-19 related topics such as public procurement, economic and social impacts, ICT solutions, prototyping of respirators and 3D printing, and others.

(4) Webinar on the Agri-food ecosystem – organized under the European Alliance Against Coronavirus umbrella.

(5) An event organized in September 2020 by the European Cluster Alliance (ECA), Eurada, and the European Commission - the "S3: Smart Specialisation Strategies Week" to support clusters and SMEs to make use of the EU Structural Funds for recovery.

At the Romanian level, the first agricultural cluster was set up in Cluj-Napoca – the AgroTransilvania Cluster. Currently, there is a total number of four agri-clusters at the national level.

According to the conducted qualitative research, there were not identified any specific evidence of measures or events organized by the agri-food clusters dedicated to the pandemic, other than saluting and promoting the special events organized at the European level. The activity of the following clusters was analyzed ADR SV Oltenia, Agro Transilvania, IND-AGRO-POL, BIODANUBIUS.

5. Conclusions

The COVID-19 outbreak highlights the fact that in a global community, everything and everyone is interconnected. Very active, from a single city, the virus spread to 188 countries around the world, transforming people's lives and the economic layers with no exception. Despite the decades of modeling pandemics to predict potential consequences, the COVID-19's impact on the food supply chain and particularly on livestock production was still unforeseen.

In light of recent challenges in the food supply chain, the pandemic caused significant concern in food production, processing, distribution, and demand. More specifically, COVID-19 caused financial pressures in the food supply chain, restrictions in workers' movement and trade policies, changes in demands, and food production facilities' closures.

To alleviate the pandemic's consequences on the food sector, the EU took immediate actions and facilitated the movement of workers and agri-food products and offered financial support for small farmers and SME businesses in the agri-food sector.

At the Romanian level, the total value of trade decreased by 18%, from 45 $USD billion in 2019 to $USD 36.9 billion in 2020 for January-June and August periods. The top three sectors that mostly contributed to Romanian exports in 2019 and 2020 were as follows: Motor vehicles, parts, and accessories, Motor cars and other motor vehicles; principally designed for the transport of persons and Insulated wire, cable and other electric conductors, connector fitted or not; optical fibre cables. The agricultural exports composition is homogenous, mainly conducted by three sectors, which have a total share of approximately 70% in agricultural exports in 2019 and 2020. Maize (corn), Wheat and meslin and Sunflower seeds; whether or not broken were the top exported commodities in 2019, adding in 2020 the Cigars, cheroots, cigarillos and cigarettes; of tobacco or of tobacco substitutes item.

Being a member of a global cluster definitely brings its rewards. As the research conclusions indicate, the European clusters organized several webinars and virtual meetings for the agricultural procedures, reuniting cross-border experts during the pandemic. The strength of the cluster is gathering knowledge and multi-level competencies - as its members offer their cross-sectoral contributions from all over Europe. There was no clear evidence concerning national clusters that members of clusters benefited more than the independent producers in Romania.

6. Acknowledgment

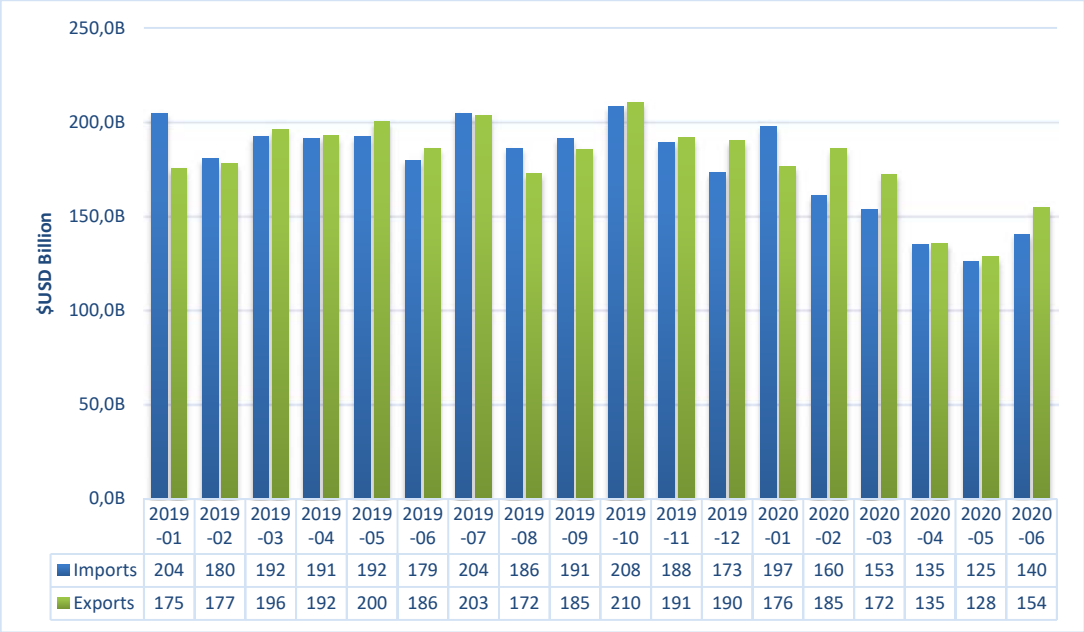
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Appendix

*Figure no. 1: The European evolution of exports in terms of value, 2019-2020**



	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10	2019-11	2019-12	2020-01	2020-02	2020-03	2020-04	2020-05	2020-06
Imports	204	180	192	191	192	179	204	186	191	208	188	173	197	160	153	135	125	140
Exports	175	177	196	192	200	186	203	172	185	210	191	190	176	185	172	135	128	154

**Excluding data for July, September, October, November and December 2020 – data is not available for 2020

Source: Author's own computation based on https://trendeconomy.com/trade (2020)

Measuring the Future Potential of a Country in Terms of Human Capital

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Abstract

This paper is focused on the human capital as source of increasing productivity and on the future potential productivity for a child born today, using Human Development Index (HCI) developed by World Bank. Considering education and health as the main factors which determine the human capital productivity, the index measures how productive it will be at 18 years old a child born today, compared to a person with complete education and full health. For Romania in 2020 the value 0.58 shows that only 58% represents the potential productivity compared to a maximum possible for complete education and full health. At UE level, not only for Romania, but also for the other countries efforts must be made to increase the general level of education and to achieve a state of health that allows the use of the entire productive potential of human capital.

Key words: human capital, Human Capital Index, productivity, education, health
J.E.L. classification: I15, I24, J24

1. Introduction

In a large sense, human capital means the stocks of knowledge, the worker abilities, acquired or innate, the attitude for the tasks and others capabilities which can contribute to the increasing productivity. At present there are a lot of studies about the components of the human capital, which debate the advantages and disadvantages of considering one element or another as part of the human capital. These also bring to attention the possibility to quantify or not some components, in the context of labour economics.

So, it is not enough to consider the years of schooling as part of a human capital. Starting with it, we must take into consideration the school quality, type of training process or the attitude towards tasks or work. This type of analysis could help us understand the differences in worker earnings and the productivity potential as a key which can reduce the risk of poverty.

2. Literature review

There are numerous theories about the human capital which explain how it can contribute to the productivity and how it determines the level of earnings. The term "human capital" was introduced for the first time in modern economic literature by Schultz, who described how contribute the stock of education contributes to the national income growth. (Schultz, 1961). Another important theory was developed by Becker and Mincer. They analyse the education and training as an investment in the human capital and how these investments generate lifetime earnings at different levels of investment. Moreover, they analyse the investment in education and training in terms of returns, separating costs in direct expenses and in earnings that it gives up on for short time, earnings offset in the future by higher lifetime earnings. Using this reasoning, they argue how women and minorities that invest by far less in education may have lower earnings and a high risk to be in a state of poverty. (Becker, 1962, 1964) (Mincer, 1958, 1962, 1970, 1974)

Bane and Ellwood find that young people and woman moving out of parent's home have a higher relative risk of poverty, but this is just temporary. On average in three years, the accumulated human capital allows them to have a decent income. (Bane and Ellwood, 1986)

Education is the key of productivity. One additional year of school increase the wages with 9 % for men and with 10% for women in UK. (Walter and Zhu, 2003). Similar, in the USA an additional year of schooling could mean between 12 and 16 per cent increase in wages. (Ashenfelter and Krueger, 1994). For Australia, significant higher wages are for higher levels of education. An employee with 12 years of education earned around 13 per cent more in case of men and 10 per cent more in case of a women, than a person with only 11 years of education. Also, university education adds about 40 per cent to employee's earnings. (Forbes et al., 2010)

A good health is a condition to increase the productivity. The investment in health can reduce a future potential productivity loss; comparing the original investment in health with productivity losses we will discover that the long-term benefits are greater if we invest in the health of the new generations. (Lofland et al., 2004). If for the young children adequate nutrients are not provided and the exposure to diseases is not limited, there are serious risks that their brain development will not be complete. The problems like lower cognitive or socioemotional skills could appear in their adulthood. The stunting can generate poor outcomes throughout the lifecycle across, that because the undernutrition in childhood marks the cognitive development. (Galasso et al., 2016)

3. Research methodology

In this paper we intend to discuss the real productivity of a generation compared to potential productivity determined by complete education and full health. In this regard, we analyse the components and values for Human Capital Index (HCl), a composite index published by the World Bank Group which brought it to our attention for the first time in 2018 and subsequently updated in 2020.

4. Measuring the human capital

The goal of the project is to measure the human capital expected after 18 years for a child born today. HCI tries to highlights how education and health of the next generation shape the potential productivity for it. The range for Human Capital Index is 0 to 1. For example, a 0.6 value means that a child born today will use only 60% of a total productivity generated by full health and complete education, the 1 value means that the full potential productivity is reached.

The components of Human Capital Index (HCI) are survival, school and health. For survival, the first component of the index, it is used an under-five mortality rate, because not all the new born will survive until the moment they begin to use the human capital accumulation. For the second component, school, is taken into account simultaneously the quantity and the quality of education. Regarding the quantity education, the number of years of school that a child can expect until 18th birthday is used, so the maximum value is 14 years, if we consider that preschool starting at the age of 4. For the quality of education, it is used a harmonized test score (HTSs) is used, that converts the expected years of school into quality-adjusted years of school. Consequently, real 10 years of school could mean less for quality-adjusted years of school. The last but not least important component, health, include adult survival rates and healthy growth among children under-5. Adults survival rates is determined as the share of 15-year-old who survive until age 60 and the healthy growth among children under age 5 is measured as the fraction of children who are not stunted.

All these components are first converted into a relative contribution to productivity and after that it is calculated a single index is calculated, summarizing in units of productivity the potential of a generation born today to achieve, at age 18th, the full productivity potential for complete education and full health.

In this paper we will focus on the European Union countries, analysing the potential of productivity for Romania compared to other countries with similar condition. We will take into account both components, education and to health, both equally important to attain the goal that a child born today to reach his/her full productivity potential in adulthood.

Table no. 1 The Hierarchy after HCI for EU Countries

Country	HUMAN CAPITAL INDEX 2020	Probability of survive to age 5	Expected Years of School	Harmonized Test Scores	Learning-Adjusted Years of School	Adult Survival Rate
Countries with higher HCI Values (more than 0.75)						
1.Finland	0.80	1.00	13.7	534	11.7	0.93
2.Sweden	0.80	1.00	13.9	519	11.6	0.95
3.Ireland	0.79	1.00	13.9	521	11.6	0.94
4.Netherlands	0.79	1.00	13.9	520	11.5	0.95
…	…	…	…	…	…	...
8.France	0.76	1.00	13.8	510	11.3	0.93
9. Belgium	0.76	1.00	13.5	517	11.2	0.93
10.Cyprus	0.76	1.00	13.6	502	10.9	0.95
11.Denmark	0.76	1.00	13.4	518	11.1	0.93
Countries with medium HCI Values (between 0.75 and 0.70)						
12.Poland	0.75	1.00	13.4	530	11.4	0.89
13.CzechRepublic	0.75	1.00	13.6	512	11.1	0.92
14.Germany	0.75	1.00	13.3	517	11.0	0.93
15.Austria	0.75	1.00	13.4	508	10.9	0.94
…	…	…	…	…	…	…
Countries with low HCI Values (under 0.70)						
23.Greece	0.69	1.00	13.3	469	10.0	0.93
24.Luxembourg	0.69	1.00	12.4	493	9.8	0.94
…	…	…	…	…	…	…
26.Bulgaria	0.61	0.99	12.3	441	8.7	0.87
27.Romania	**0.58**	**0.99**	**11.8**	**442**	**8.4**	**0.88**
Average UE Countries	***0.7312***	***0.9961***	***13.3501***	***502.5130***	***10.7481***	***0.9190***

Source: Processing after Human Capital Index 2020, www.worldbank.org/humancapital

5. Findings

Studing the values for the main components we conclude as that Romania is on the last position for HCI Index in European Union. The value 0.58 show as that the next generation born today will reach only 58 per cent of possible productivity at the age 18th, under the condition of complete education and full health. As you see the average is 0.7312 at UE level and the value for Romania is 23% lower that the EU average.

In terms of health, in Romania the probability of survive until the age of 5 is 0.99, a value very close to 1, but, at the same time, the value for adult survival rate is just 0.88, with 1 percent higher that Bulgaria and with almost 4 percent lower that EU average. In terms of education, Romania has only 11.2 years of schooling on average, while the EU average is 13.35 years. One of the most likely causes is dropping out of school, especially in rural areas. The harmonized test school 441 is with 12.51% lower than EU average and also the indicator representing learning-adjusted years of schooling is very small – 8.4 years on average, with 21.84% lower than average value at UE level.

Where can Romania recover? Each component is important; a small advance in education or health could mean a great start to a full productivity. If education and health become a national priority and sufficient funds will be allocated for those two areas, then there is a chance that future generations will use their full productive potential.

6. Conclusions

The investments in human capital are important for all the countries. They are important even for the richest countries if they want to maintain their successful position in the global economy. But it is more important for the poorest countries, for the fragile economies. Therefore, to invest in people and focusing on the human capital potential it still need. The investments in human capital, in the quality education or in the health systems improvement, could help the countries to reduce poverty and promote sustainable growth.

The values for HCI reflect serious human capital crisis, with implications for the economic development. The physical capital productivity together with the human capital productivity contribute to the economic growth as part of the economic development. So, the investments in quality education, in health care or in good quality nutrition could create a more inclusive society and could eliminate the extreme poverty.

Romania deserves to become a country that can use its full productive potential, in which the population will have higher incomes, better health and complete education. Only in this way we can become an inclusive society, with a modern economy and with a qualitative life.

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The Development of Rehabilitation Medical Services during the COVID-19 Pandemic Crisis

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Abstract

The medical research conducted during the COVID-19 pandemic has highlighted numerous sequelae and readmissions (to hospitals) of patients with moderate and severe forms of COVID-19 and has outlined the need for a post-COVID 19 rehabilitation process developed and conducted in an organized, safe, and accurate manner. This is a new challenge for both the medical rehabilitation community and the economy and also for a large number of patients who need to be in contact with the medical staff more than ever.

The aim of this article is to investigate the literature from 2020 to 2021 on the extent of post-COVID sequelae and their management. During this period a lot of research has been done regarding the treatment for this disease and how necessary it is to change the provision of medical services so as to serve the patients who are hospitalized, as well as the patients who need additional medical care at home after being discharged from the intensive care units.

Key words: pandemic, rehabilitation, telemedicine, physiotherapy, sequelae
J.E.L. classification: I15

1. Introduction

In March 2020, the World Health Organization declared the epidemic of the new coronavirus (COVID-19) caused by the Sars-CoV-2 a worldwide pandemic. Currently, the number of cases of those infected with the new coronavirus has reached about 95,000,000 worldwide, and the number of deaths about 2 million (according to Worldometer). In cases tested positive, about 10-15% progress to severe forms, and about 5% reach critical condition, which requires assisted ventilation, and ⅕ require hospitalization, according to the report of the World Health Organization. Typically, people recover from COVID in 2 to 6 weeks, but in some cases, the symptoms may persist; recurrences or other complications may occur in the weeks and even months following the initial recovery. This can happen even in moderate cases. According to a new study conducted in the UK (Ayoubkhani *et al*, 2021), almost a third of recovered COVID-19 patients ended up back in the hospital within five months, and up to one in eight died of complications from the illness. The involvement of medical rehabilitation specialists could help reduce these complications.

2. Theoretical background

Throughout the pandemic, COVID-19 has entailed significant challenges for rehabilitation services around the world. Rehabilitation services are among the medical services most severely affected by the pandemic. At the same time, COVID-19 increases the need for rehabilitation, both for patients currently suffering from the disease and for those who suffer from (experience) its long-term consequences. The World Health Organization, together with its partners, is developing guidelines and resources for medical specialists and patients, including the integration of rehabilitation into key clinical protocols and independent rehabilitation resources (World Health Organization, 2020).

2.1. Post-COVID sequelae

There are numerous clinical signs of the new coronavirus (SARS-CoV-2) that can range from asymptomatic illness to serious acute respiratory failure. Different pathophysiological pathways are due to phenotypes and require the development of various treatment protocols depending on the patient.

The assessment and detection of different phenotypes can help configure treatment protocols which include various therapies, such as oxygen therapy, non-invasive ventilation, airway management, or tracheal intubation. It is essential to conduct more studies, as they can provide the necessary information to assess the impact of different phenotypes in rehabilitation strategies.

The residual sequelae and their limitations in the respiratory system of survivors of COVID 19 will be a concern for recovery programs around the world. Lung lesions are directly linked to the present phenotypes and, based on their severity, rehabilitation care is provided. As far as the decision-making process is concerned, differentiating patients according to phenotypes will enhance the decision-making process (de França *et al*, 2020).

Among the most common post-COVID symptoms are those of the underlying disease, as well as those related to post-hospitalization, which usually occur in patients who were hospitalized for a longer period in an intensive care unit:

- cardiac sequelae: arrhythmia, heart failure, severe myocarditis;
- neurological sequelae: convulsions, paresthesia, lack of taste and smell, viral encephalitis, increased risk of stroke, cognitive disorders, headache;
- sequelae of the respiratory system: pulmonary fibrosis, functional lung deficiency, respiratory failure;
- musculoskeletal sequelae: physical deconditioning, muscle weakness, low joint mobility, pain in the neck and hips, balance disorders;
- other symptoms can be added to the list above: dysphagia, limitation of self-care activities, communication disorder.

The presence of cardio-pulmonary sequelae, as well as the symptoms described above and other comorbidities need to be considered in the patients who are about to enter a post-acute rehabilitation program.

2.2. Post-acute rehabilitation in the context of COVID-19

Rehabilitation involves a whole process of assessing and treating a series of complications associated with chronic diseases, through an integrative physical and psychosocial approach, focused on the individual needs of the patient, being practiced by a multidisciplinary team. Rehabilitation is beneficial for any patient suffering from a chronic disabling disease, at any stage, and can be performed in any environment (at home or in a hospital).

The main goals of rehabilitation are: optimizing the quality of life by reducing pain and stress, facilitating the social integration of patients by increasing their independence in household activities and self-care and improving their ability to adapt and respond to changes in the environment.

As patients are transferred to sub-acute care units or are discharged and reintegrated into the community, rehabilitation services need to have well-structured operating and organizational protocols to provide safe and effective therapy for patients and healthcare professionals.

Post-acute management and rehabilitation of post-COVID-19 patients will be the focus for the coming months, given the magnitude of functional, psychological, and clinical deficits reported in many patients.

Early rehabilitation interventions in intensive care units after a comprehensive assessment by an interdisciplinary team are necessary for safety reasons.

The necessary interventions fall into 5 categories: exercises for the cardio-respiratory system, repeated training of functional activities (muscle toning, walking, etc.) through physical therapy and physiotherapy, psycho-social therapy, education with an emphasis on self-management (self-care) and prevention, as well as regular risk/ benefit assessment and possible adverse reactions, to determine if treatment is safe and if it can be continued or if it should be changed/ discontinued.

3. Research methodology and results

By investigating the specialized studies published in the period 2020-2021 and the way in which various authors related to the COVID-19 pandemic, we have identified the answers and solutions offered by them, answers which confirm our research hypothesis according to which medical rehabilitation has an essential role in the new protocols which need to be developed in order to treat post-COVID-19 sequelae.

The issues described above show that it is necessary to configure a personalized and individual rehabilitation service according to the particular needs and goals of each patient, to optimize the patients' quality of life through a holistic and comprehensive approach.

New scientific information is emerging, and therapeutic behavior changes depending on the acquired knowledge.

At present, the specific rehabilitation protocols for post-COVID patients are still limited.

Several pandemic rehabilitation approaches are studied, assessed, and recommended, including virtual rehabilitation through telemedicine, using smartphone applications.

These rehabilitation protocols will represent the basis of specific programs for the management of participation restrictions and limitations in fulfilling the following basic functions of the human body:

1. respiratory functions, with particular attention to cardio-pulmonary resistance and correct respiratory patterns;
2. neurocognitive functions, specifically for memory deficit, central sensory-motor impairment, central and peripheral neuropathies, and dysphagia;
3. motor functions, including muscle strength, flexibility, and endurance.

The necessary resources are represented by a multidisciplinary team endowed with skills and knowledge for the integral management of patients with post-COVID-19 disabling sequelae and associated comorbidities.

In addition, the provision of rehabilitation services for patients would need to include electronic equipment for remote monitoring as appropriate, as well as orthoses. These equipment items can be personal or given for use to the patients, to be returned at the end of the treatment, subjected to sanitization according to the new regulations, and then offered for use to other patients.

Another way to include patients in rehabilitation programs is telerehabilitation. Telemedicine has become an adjuvant in this pandemic context for the provision of medical services through state-of-the-art technology that facilitates communication between patients and the therapist through videoconferencing and platforms specially designed for this purpose.

Several telerehabilitation techniques can be used both for the patients who have suffered a stroke and for those with post-COVID myocardial infarction such as TENS (transcutaneous electrical stimulation, mirror therapy, home exercises, and virtual reality exercises). Several studies have shown that the telerehabilitation alternative is not inferior to the physical exercise performed in the clinic and both have shown a considerable improvement in motor function in post-stroke patients, reducing the risk of death and complications.

Observational studies and meta-analyses (Nan *et al*, 2021) have shown that telemedicine can be used to reduce time waiting for hospitalization in patients who need rehabilitation or who have had a recent stent surgery.

Moreover, clinical pieces of information about patients (heart rate, blood pressure, body mass index, etc.) are provided through portable devices and telemedicine. These pieces of information help diagnosticians and physicians implement a personalized treatment program for patients without making them physically come to the hospital.

Remote monitoring is therefore a promising aspect of telemedicine, which involves more strategies, such as smartphone applications, GPS, and Bluetooth technologies.

During the COVID-19 pandemic, many academics and businesses used smartphone applications and online information to collect data and encourage patients to report symptoms and demographical data. These applications are collectively called Symptom Tracking Apps. Collecting patient information through these resources leads to the storage of valuable data for efficient analysis.

As health systems continue to be compromised during the COVID-19 pandemic, telemedicine is therefore an effective method for patient management.

4. Conclusions

The Covid-19 pandemic was a challenge for both the medical community and the general population, in terms of organization, economic, psycho-social, and crisis management.

Thus, this pandemic turned into a crisis for the economic and health system, which led to numerous changes in these areas. The provision of medical services has become significantly more difficult, and telemedicine has become a welcome and relatively easy-to-implement alternative for assessing and treating patients, helping the medical community make better decisions for patients, especially when social distance has become mandatory.

Furthermore, an appropriate and rapid response is needed from the medical community, but also from an economic point of view regarding the rehabilitation services needed to underpin adequate medical support for managing the impact of the pandemic on the patients' functional and physical decline.

Medical rehabilitation needs to be an ongoing process, with a holistic and comprehensive approach to achieve the restoration/ improvement of the functional level of disability and to maintain the optimal independence of the treated patients.

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Challenges in Using AI in Online Commerce

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Abstract

With the sharp rise in digitalization, we see an increase in human-machine interaction. In the context of the pandemic, online commerce has risen sharply and so have the challenges both retailers and customers face. This article explains the role of Industry 4.0 in accelerating economic development in general, it defines the categories of bots (robots) that can be used in different types of activities/services, it presents the challenges, advantages - disadvantages of technology and of artificial intelligence use in global development.

We present an analysis of the current general situation while investigating the future trends regarding the increasingly accelerated use of artificial intelligence in industry and services.

The article is based on studies conducted during this period regarding the role of artificial intelligence in the current economic context, as well as those regarding the human-machine relationship. It represents a kind of explanatory research on this huge challenge caused by unprecedented scientific and technological development.

Key words: online commerce, machine learning, industry 4.0, the fourth industrial revolution, RPA
J.E.L. classification: L81

1. Introduction

The complex interconnection that comes with Industry 4.0, accelerated by the 2020 pandemic (Koetsier, 2020), leads digital users to more frequent interactions with online entities that use intelligent algorithms to simulate human behavior. The ever-increasing volume of online commerce attracts the usage of these algorithms which are incorporated in expert systems thus exposing users to Artificial Intelligence (intelligent agent). These software systems are used for both benign and malign purposes. Although the methods used are different, the separation line between them is blurred with profit being the main drive.

2. Theoretical background

Man-machine interaction is at the core of this complex subject and the problems that arise are as prevalent in the IT sector as it is in social sciences (Irving & Askell, 2019). The main factor between winning and losing is the technical edge one has on the competition, a fragile attribute that can be easily modified while adding or subtracting the possible implications of the new technology. Simulating humans is a very profitable use of these software systems and there are major reverberations felt throughout the commercial sector (de León, 2020).

The year 2020 brings intelligent agents that accurately predict the needs and wants of humans but it also brings intelligent agents that disrupt Christmas shopping. (Molloy, 2020).

2.1. Artificial intelligence (intelligent agents)

Intelligent agents in Artificial Intelligence are computational systems that solve (narrow realm) tasks that can be performed by humans. The naming itself - intelligent - can bring an unmerited note of autonomy to these systems and can also bring some unwanted demonization of the subject purely on a semantic basis (Leetaru, 2019).

The recent breakthroughs in the Artificial Intelligence field were made by machine learning, a type of AI that can process big data inputs and predict outcomes. Machine learning is mainly based on simulating neural networks - a type of programming that allows the system to learn by itself and perform specific tasks better and faster than humans. The core of all this is computational intelligence, software that needs to be configured and trained by humans which in the end simulates only a small part of human intelligence.

How intelligent is artificial intelligence? As of the time of writing the level is considered *narrow* - as in a very narrow field that each intelligent agent can be used. Processing power on the rise and a bigger and stronger network leads to a growth in AI research but that's not enough. Since 2012, the computational power used for training AI has doubled every three months (Hao, 2019). Still, we are at *narrow* level AI and research on quantum computing can give us a time frame for the next big step for AI, *general* level.

One of the trends is to create, as accurate as possible, digital twins for each person connected to the network. This trend is set to continue with even more (and better) data, faster processing, and even smarter algorithms. These are the three main factors for AI progress. *Digital twins* is a concept that works great in engineering and have successfully entered the daily operations of many businesses via process automation. Robotic process automation uses intelligent agents to create digital workers. Because of this, productivity is set to increase and operational costs to decrease abruptly over the next decade.

2.2. Bots

The word bot originates from (ro)bot implying that some kind of automation takes place with a certain degree of autonomy. It defines a purposely built software that is usually used in an online environment to simulate human behavior. As opposed to robots who are categorized by appearance, software bots are categorized by their purpose. That purpose can be benign - conversational chatbots, web crawler bots that index the internet for your search engine, information gathering bots that dynamically change the content the user is seeing, and tailor the experience for that user. On the other end of the spectrum, some bots scan for vulnerabilities and infect unprotected systems, shopping bots that buy limited stocks of highly sought-after products, rapidly moving big stocks to the gray market.

Chatbots are agents that simulate a conversation with a human partner using NLP - natural language processing. Although unnecessary, the academic goal is to beat Turing's test (Prasad, 2020) with the end goal being to engage humans/customers/users more ergonomically. Chatbots can be used as text only or can have a text-to-speech component installed so the conversation is done through spoken language. Chatbots are mainly used for customer service applications although they are used in all fields that require (or seek) human interaction. Using them to recommend services, receive feedback, and guide the user through the purchase process takes a load of human resources and the parity between human and AI customer service agents is set to grow. Forecasts about interactions with retail chatbots anticipate they will reach a very effective 50% conversion rate by 2024 without the need for a human operator to intervene (Juniper Research Ltd, 2020). Decreasing operational costs, round the clock availability are some of the evident advantages of chatbots.

Another example is the sneaker bot, an automated software created with the sole purpose to scan online stores and buy the latest and most coveted pairs of sports shoes which are then sold on back channels. This method is still in a gray legal area even though the US deems illegal the same practice for concert tickets. The same flavor of bots was also used not only to buy game consoles but any product where demand is bigger than the supply of limited-quantity items. This leads to a negative shopping experience for customers. At the core, this problem is actually about human detection.

"I'm not a robot" is a statement every internet user has made at least once. This is the display

window to a cybersecurity battle between building algorithms to separate human users from malicious software bots and algorithms that pose as humans. The ping-pong game between the side doing their best to simulate human shoppers and the other to detect them is taking place in the market but also in the academic world for the last two decades with no signs that either side has the upper hand (Ye et al., 2018)

3. Research methodology & results

The article investigates the way in which various specialized studies describe and explain the role of the Fourth Industrial Revolution, that of artificial intelligence (AI), in the economic area and the interface created between man and machine. The researched problem is related to the advantages/disadvantages of using robots for different types of activities, but especially in the area of online commerce, as well as how far one can go in terms of replacing a man with a machine in the relationship with another man. Investigating the specialized literature and the way in which various authors have related to these phenomena, we have identified the answers given by them, answers which confirm our research hypothesis, i.e., artificial intelligence is not yet "that intelligent" and we are not in the phase of thinking about the systematic and exhaustive replacement of the man by a machine.

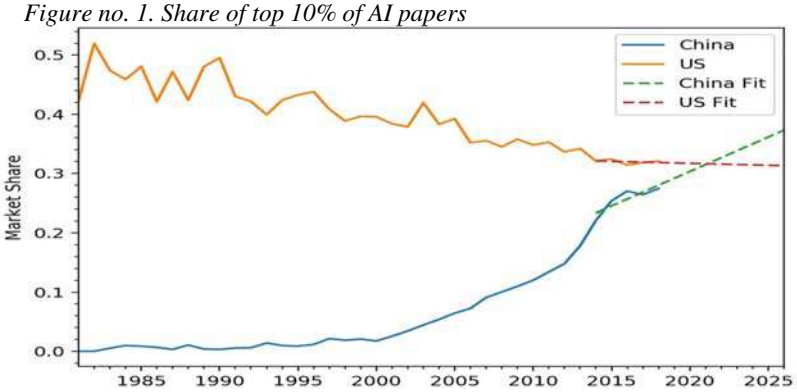
Omnipotent data and omnichannel marketing (Juniper Research Ltd, 2020) are the need for those who want the upper hand in the market. Collecting and storing high-quality data on the customers' habits is one part of the equation with better processing that data being the other. Choosing the right AI is a challenge and is dependent on the task at hand as is being aware of what constitutes junk data that can only hinder the process.

Although the global chatbot market is expected to reach 1.25 billion USD by 2025 (Grand View Research, 2017), brand dehumanization is a potential pitfall for those using chatbots and automated processes. Although more than 70% of users prefer interaction with a non-human chat partner when looking for answers to simple questions (Schneider, 2017), using only chatbots to address the customers can shift the perspective on that brand. Limits imposed on chatbots by either unsatisfactory programming or just technical difficulties can drastically worsen the user experience and that reflects directly on the brand using it and not on the platform or programmer. Human supervision is still needed thus creating hybrid AI which works by integrating humans in the workflow. As the EU tightens privacy rules, AI privacy issues have to be tackled in new ways. There is a new information flow that needs to be regulated and global AI rules are still not in place (Knight, 2019). Adding the doubling of Internet of Things (IoT) connected devices from an estimated 30 billion in 2020 to 60 billion by 2024 (Statista, 2018) creates a new set of problems that should be tackled interdisciplinary.

Ethics and long term social impact are challenges to be addressed. Professional culture clash (Edmondson, 2017) is still an issue and as the Fourth Industrial Revolution picks up pace, social sciences and IT representatives on all levels should start balancing the wants and the needs of humanity as a whole.

Corporate social responsibility can help in this area with ergonomic information and proactive education targeted at both consumers and businesses. Education is crucial for emerging markets and helps new technology to be viably integrated into tomorrow's business landscape. While the US is focusing on AI patents, China has a growing high-quality number of AI papers, the EU needs to further invest in talent and research in order to overcome its internal inclusion issues by technology advancement (Figure no. 1).

Figure no. 1. Share of top 10% of AI papers



Source: (Schoenick, 2019)

4. Conclusions

Processing power, as shown before to be a crucial factor in AI development, is disproportionately split between the private and the academic sector (Murgia, 2019). Research in universities has to be further increased using the resources of the private sector so that AI technology can remain as open as possible.

Keeping the academic research sector competitive should, in theory, keep the technology open and avoid balkanization via either regulation or patent claims.

Keeping the interconnectivity promise of the Fourth Industrial Revolution, all technology must work together for the needs of the human race. As Amazon's Digital Turk (Schwartz, 2019) has humans working as nodes in a more comprehensive algorithm network, the near future will bring a connection that will make extended intelligence a reality.

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Mathematics and the Prestige of the School Unit

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Abstract

The scientific innovation of the research is determined by the elaboration of the psycho-pedagogical forming fundaments for the prestige of the educational institution: the essence and structure of the pedagogical phenomena are researched: the image of the school, educational management; the structural-functional correlation in the continuous training and the general knowledge, the pedagogical, psychosocial one, the functions and roles performed by the manager for the improvement of the school image. Technology is a reality of the current times we live in, a constantly changing field that can bring enormous benefits in the field of mathematics, but teaching mathematics cannot be done online for too long, if you want performance.
The aim of the paper: to establish the variables of a psycho-pedagogical experiment that consisted in applying two questionnaires regarding math class in the online environment and the components of the image of the educational institution, respectively image realization of the school.
Research objectives: studying the literature; determining the identification elements of the problems regarding the math class in the online environment; determining the elements for identifying the image of the educational institution and the criteria for assessing the school image.

Key words: prestige, image, educational partnership, educational management.
J.E.L. classification: I21

1. Introduction

In the current context, the school is going through a very difficult period, online learning must be complementary to face-to-face learning and not become a way of organizing the education system; the online school must be a temporary measure that is required in this period of health crisis and not a permanent measure for teaching-learning-assessment in Romania.To achieve this goal, the school must gain the trust of parents, community and students by turning them into partners in their own education.

The school's concern to promote a credible and realistic image is also justified by situations that illustrate undesirable behaviors.

At the level of school units in Romania, there is a responsibility assumed by an image counselor, to promote the image of the school among parents and at the community level. At the same time, the image counselor has the role of establishing relationships with institutions and partners that could improve the school's performance. At the level of rural institutions, the responsibility of the image counselor is perceived as formal, neglecting its importance. There is no thorough training in this regard, the prestige of the school is promoted intuitively, in rare cases being formulated an educational marketing strategy and image.I consider it a virgin land because the need to form and maintain the prestige of the school was realized only after unprecedented situations that could have tarnished the authority of the teacher.

2. Theoretical background

The prestige of the school is a balance between its personality, the projected image and the received image. Externally, if his personality does not correspond to the image he wants to convey, the image will be random depending on the parameters of reality. An image that is not worked on is an abandoned image, an impermissible negligence.

The knowledge of the image that the school has is of great importance, because the images have the function of a formative element of opinions and attitudes, influencing the appreciations of the beneficiaries and thus their manifestations.

Basically, in order to live and survive, a school must make its programs or ideas known and accepted. It must be in close accordance with the environment to which it is addressed. A school that is not talked about, does not exist.

In order to defend a school, it has to face dissatisfied opponents, and even journalists. The image inspector and image counselor play a key role in finding the right responses to attacks.Socially, the school must build an image of morality, social responsibility, active partner in the community. To prepare a background of sympathy on which all development actions will be folded. This concern makes the difference when the organization is in a crisis situations

It is very important for the school to know what others think about it. The relationalist has the obligation to structure his needs and desires and to translate them to the top management. This can be done through passive listening (press review) or proactive listening (regular consultation).

In order to convert all the information gathered into dynamic and effective actions, someone must understand it, analyze it and interpret it. In Romania, these tasks are assumed by the image inspector (from the school inspectorates) and by the image counselors (from the school units). Journalists need to look for additional information where they know they will be well received and get what they want quickly. Hence the need to have a high-performance welcoming structure for them, more precisely the image department.

Internally, any school is structured based on information circulating inside. If an employee does not know the changes in the organization of the school, he will be counterproductive. The school must therefore inform its internal staff about the policies, projects and services so as to make them better understood and accepted.

If in a school each teacher decides to organize a press conference, a launch, an event, there will be some confusion somewhere. In order to ensure the internal coherence of an organization's communication, all related activities are channeled to the image advisor.

The image inspector must support all schools for communication and material production activities. When drafting a press release, if each unit should learn the rules of issuing a press release each time, a lot of energy will be lost within the school unit.

In order to maintain a sense of belonging and loyalty, staff awareness strategies need to be developed. The spirit of a team can no longer be animated only by cold information, but by seminars, meetings, attitudes. Raising the awareness of employees (teachers, support staff, non-teaching staff) in contact with the public facilitates success.

To achieve this, the public must be constantly consulted to know their state of mind, resistance and appreciation.The image department will consult with the school management in connection with the elaboration of image policies and strategies, with the setting and definition of the current and long- term objectives in public relations and with the elaboration of communication programs regarding the school unit projects.

3. Research methodology

The pedagogical experiment consisted in the application of two questionnaires, a questionnaire was applied to the ninth grade students from the college where i teach and a questionnaire to the managers of the educational units. 94 and respectively 82 respondents answered these questionnaires. According to the issues addressed, it is a psycho-pedagogical experiment, according to the number of variables it is a multivariate one, according to the purpose of the research it is a complex one, which includes ascertaining, training and verifying the results obtained.

The objectives of the ascertaining experiment were aimed in particular at:

- Managers of the educational unit must determine the components of the image of the school institution they coordinate;
- Math class in the online environment
- Determining gaps / shortcomings among students and managers;

In order to achieve these objectives, the following methods were applied: the opinion questionnaire, the conversation and the scientific observation.I mention the fact that the observation had a scientific character; the observation action was very well prepared in advance, the data were recorded following the unfolding phenomenon, the managers were from all forms of education, directly framing us in the activities of the investigated samples.Regarding online math class, students believe that:

- math class can also take place with the help of videos specific to the lessons, which could help them to understand better (2.12%)
- The first time should be a recapitulation of what was done last hour and if we have ambiguities then let's do exercises (1.06%)
- they like math class, exactly in the format it is now (54.06%)
- how it went so far (11.66%)
- seriosity (2.12%)
- the teacher at the end of the lesson to do a small recapitulation with the students (1.06%)
- fewer homework and explanations to be clearer (1.06%)
- Not to be a stressful hour (2.12%)
- In the 50 minutes the teacher must speak for 25 minutes and the other minutes for the students. (1.06%)
- I think that the teacher should be close to the students and explain them, several times, to those who did not understand. (1.06%)
- The student to answer when asked and the teacher to help the student where he does not know and not to put minus if he does not know (1.06%)
- There should be an equal relationship with the student and the teacher. (1.06%)
- To be a quiet and stress-free hour (1.06%)
- Quiet (2.12%)
- more detailed explanation of the exercises and of the taught subject (3.18%)
- Our math class should be interactive. (1.06%)
- to have a material taught and explained and then to be exercised based on the material (2.12%)
- there is a dialogue between teacher and student and we are explained everything we do not understand (3.18%)
- I think that the math class must be more interactive by using specific tools where we are presented with various materials (PDFs, PowerPoint) (2.12%)
- prefers to work easier exercises and homework to be less. (3.18%)
- explaining the exercises several times and a little patience with the students who were left behind. (1.06%)
- It must be a relaxing time for all students to participate (1.06%)

This questionnaire was generated on the Classroom and although it was confidential, some students signed up. Depending on the student's area of interest, they expressed their opinion about the math class online. The next hour I discussed these answers with them and I was very pleased with the way they expressed their opinion. I drew a parallel with the prestige of the class and how very good students in mathematics can raise the prestige of the college.

They are very serious and hard-working students who want to return to school.

Regarding the second finding experiment, it allowed us to highlight the following aspects: 30.4% of managers are from rural areas and 69.6% of managers are from urban areas.

Regarding the highlighting of the components of the image of the educational institution, the finding experiment (item 1- What are the components of the image of the educational institution that you coordinate?) Helped us to establish them as the following:

1.1. Emphasizing individual responsibilities for achieving goals. (1.21%)

1.2. Increasing the degree of autonomy and managerial flexibility. (2.43%)

1.3. Introduction of performance indicators for measuring the degree of achievement of fundamental and individual objectives. (1.21%)

1.4. Integration in the managerial thinking of the 3E: economy, efficiency, effectiveness. (1.21%)

1.5. Educational offer. (28.04%)
1.6. Partnerships. (28.04%)
1.7. Participation in local, national and international symposia. (1.21%)
1.8. Promoting the positive image of the school unit in the community. (7.39%)
1.9. Educational management. (1.21%)
1.10. Professionalism of teachers. (6.09%)
1.11. Organizational culture: traditions, personality, professional teachers, school website, school logo, uniform, badge, school days, billboards, school magazine
Visible elements: slogan, ceremonies, rituals, behaviors
Invisible elements: norms, values, beliefs. (14.63%)
1.12. Results obtained in various educational competitions and at school. (8.53%)
1.13. C.D.S. diversified that respects local traditions, interculturality and the wishes of parents. (1.21%)
1.14. Internal regulations. (6.09%)
1.15. Quality education. (3.65%)
1.16. Permanent concern for increasing the area of activities carried out in the institution. (1.21%)
1.17. Good collaboration with different segments of the local community, social partners. (19.51%)
1.18. Qualified teachers. (10.97%)
1.19. New school unit, properly equipped. (3.65%)
1.20. Educational / exceptional projects at national, regional and county, international level. (4.87%)
1.21. Didactic and extradidactic efficiency. (2.43%)
1.22. The school institution is a stable nucleus of scientific, cultural values and social norms. (1.21%)
1.23. Educational projects (3.65%)
1.24. Didactic-material basis. (8.53%)
1.25. Development of community relations. (2.43%)
1.26. Promoting the image of the school with the help of the media, press releases. (8.53%)
1.27. Good communication with parents / family. (9.75%)
1.28. Interest in carrying out a quality educational act. (1.21%)
1.29. Detecting and improving weaknesses. (1.21%)
1.30. Extracurricular, extracurricular activities carried out in the form of artistic programs, carried out for the benefit of the community. (10.97%)
1.31. Orientation towards a well-established goal. (1.21%)
1.32. Precise, concrete objectives. (1.21%)
1.33. Quality instructive-educational process. (4.87%)
1.34. Information management. (1.21%)
1.35. Organization design. (1.21%)
1.36. Practicing a participatory management based on the quality of the services offered to the trainees. (1.21%)
1.37. Carrying out an advertising campaign. (1.21%)
1.38. Opening the school gates to the entire school population (inclusive education unit). (1.21%)
1.39. Attracting high-performing students. (1.21%)
1.40. School website. (3.65%)
1.41. Students. (8.53%)
1.42. Making exhibition panels on school halls, leaflets, posters. (2.43%)
1.43. The mission and vision of the school. (1.21%)
1.44. Interest for the organization and the public. (1.21%)
1.45. The quality of the educational act. (2.43%)
1.46. Seriousness. (1.21%)
1.47. Exterior / interior design of the school. (1.21%)

1.48. Notoriety - the quantitative component of the image of an organization, it is expressed as a percentage of members of a particular target group who have heard of the subject. (1.21%)

1.49. Image content - a predominantly qualitative component of the image, which targets the existing connotations in the minds of the interviewees in connection with an organization, a person, a public institution, etc. (1.21%)

1.50. Image intensity - is a predominantly quantitative component of the image, which reveals how strong a certain image is. (1.21%)

1.51. Teachers with a cooperative behavior, complex and impeccable personalities (models) and their effort for education reform. (3.65%)

1.52. Beliefs: "Good wins, and working with the student brings professional satisfaction". (1.21%)

1.53. School security. (2.43%)

1.54. Educational marketing. (1.21%)

1.55. Operational plans aimed at the school-family relationship in order to reduce school dropout and deviant behaviors. (2.43%)

1.56. School and extracurricular educational activities in order to facilitate the process of social integration of students with disabilities. (1.21%)

1.57. Activities that aim to remove the prejudices of the community about these students. (1.21%)

1.58. Opening the local community for the issue of the child with SEN. (1.21%)

1.59. The receptivity of the mass schools towards the problem of the child with disabilities and its integration in the regular education. (1.21%)

1.60. Materials for presenting the institution in other school units. (1.21%)

1.61. Tradition and competence. (1.21%)

1.62. Level of preparation of students. (2.43%)

1.63. The attractiveness of school history. (1.21%)

1.64. The public relations department in the school defined by the efficient public relations management. It is based on a distinct image and ethos, a public relations campaign planning and not least open relations with community and media representatives. (1.21%)

1.65. Transparency. (1.21%)

1.66. Collaboration with representatives of ethnic minorities. (1.21%)

1.67. Quality assurance. (1.21%)

1.68. Message harmonization. (1.21%)

1.69. In order to provide efficient and fast information on the education system, the Image Department includes:

a) the image folder, the mirror of the school institution, includes information of interest, such as: high school presentation, databases-teachers, students-parents, legislative landmarks (law 544 of October 12, 2001, on free access to information of public interest), diplomas that reflect the participation and performances of students in competitions or cultural-educational events, etc.

b) the school dashboard and notice board provide all interested parties with information on the staff of the school, the news in the life of the school, the legislative landmarks regarding the registration, taking and graduation of the exams, Methodical, support and working commissions. (1.21%)

1.70. Real desirable and reflected component.

1.71. Performance activity. (2.43%)

1.72. Reflecting the current activity of the school unit. (1.21%)

1.73. Tradition, openness to the new, respect for culture. (1.21%)

By interpreting the results we notice that prestige is created internally, but is promoted and capitalized externally. The image of the educational institution is the set of representations, more or less subjective, the synthesis of mental representations of cognitive, affective, social and personal nature, which are associated with the school by partners, educational actors and tutelary authority, crystallized in a specific identity.

The components that define it can be grouped into: corporal (school location, interior and exterior appearance of the building, facilities, exterior appearance of teachers, non-teachers, students, purposes offered, forms of organization of the instructional-educational process);

noncorporal (name of school, teachers and students, services provided to customers, their price); product communications (advertising, promotional actions).

The image (real or actual) is a synthesis of the received images. Image intensity is a kind of indicator of the dispersion of the content of received images, it specifies how "centered" a certain image is. If, for example, all the interviewees appreciate a certain candidate by only two attributes (demagogue and extremist, for example), the intensity of his image can be considered quite high, while, if, for the appreciation of another candidate, the attributes used are much more numerous (honest, intelligent, influential, patriotic, sociable, erased, etc.) the intensity of its image will be much lower.

Regarding the realization of the image of the educational institution, as it results from the opinion questionnaire (item 2- How do you realize the image of the institution?), The managers highlighted that they realize their image as follows:

2.1. By creating a pleasant, safe environment. (3.65%)

2.2. Modernization of the didactic-material base. (2.43%)

2.3. Increasing the quality of the educational act. (3.65%)

2.4. Intensifying partnership relations. (6.09%)

2.5. Realization of the image strategy. (7.31%)

2.6. Popularization of representative actions in the press, local and national television, press releases. (43.14%)

2.7.Extracurricular activities. (29.26%)

2.8. Activities carried out together with the parents and at their proposal. (2.43%)

2.9. Educational offer. (17.07%)

2.10. Contests, local and national competitions. (15.85%)

2.11. Actions specific to bilingual groups (Romanian-German) (1.21%)

2.12. Permanent participation in community activities. (13.41%)

2.13.Exchanges of experience with the school. (2.43%)

2.14. Permanent training of teachers. (4.87%)

2.15. Attracting new partners. (4.87%)

2.16. Organization of exhibitions. (4.87%)

2.17. Partnerships with O.N.G. (2.43%)

2.18. Participation in activities initiated by partners, in which the activity of the school is popularized, its volunteer actions. (6.09%)

2.19. Through the qualitative content of the training and education work. (10.97%)

2.20. Through adult education. (1.21%)

2.21. Supporting and working with programs adapted for those with special educational needs. (2.43%)

2.22. Partnerships with parents, the local community, the Church and other institutions, the Police, etc. (7.31%)

2.23. Ensuring the transparency of the activities carried out. (7.31%)

2.24. Supporting countless methodological activities at the level of the Methodical Center. (3.65%)

2.25. Preserving traditions. (1.21%)

2.26. Through the procedure of a pleasant, favorable impression about the institution by spreading positive information, inciting interest and curiosity in any circumstance and in any place, whenever the opportunity arises. (2.43%)

2.27. Maintaining a permanent connection with former graduates. (1.21%)

2.28. Educational visits and collaborations. (2.43%)

2.29. Continuous information of the target audience. (7.31%)

2.30. Educational activities within partnerships. (6.09%)

2.31. Presentation leaflets. (25.60%)

2.32. Cultural-artistic performances for the community. (3.65%)

2.33. Popularization of activities and successes (through participation, display, website, school offer, school magazine, inter-institutional collaboration, motivation). (26.82%)

2.34. Harmonization of messages, mediation of conflicts and dysfunctions. (3.65%)

2.35. Projects, programs for the benefit of the organization. (3.65%)

2.36. Permanent contact with the upper forums. (2.43%)
2.37. Organizing activities to mark cultural and historical events. (3.65%)
2.38. Meetings with parents. (3.65%)
2.39. Participation in joint activities with the surrounding schools. (1.21%)
2.40. Portfolio composition. (1.21%)
2.41. Openness to the community. (1.21%)
2.42. Communication. (1.21%)
2.43. Caring for students. (1.21%)
2.44. Optimal internal public relations, as a strategic management tool. (1.21%)
2.45. Institution of pedagogical practice for the students of the "Ovidius" University of Constanța. (1.21%)
2.46. Rewarding deserving students at the school level, together with the local community. (1.21%)

By interpreting the results we notice that the images about the school organization that is constituted and function within it acquire special meanings for the global image of the school organization. The prestige of the school is the result of many perceptions made by its own staff. It has a stratified character and crystallizes according to:

- the status and role of the different categories of staff in the structures of the school organization;
- the hierarchical organizational levels in which the Image Advisors operate;
- bringing the Image Advisors closer or further away from the decision structures;
- the place and role they play in information flows;
- respect and loyalty to the organization;
- knowledge, acceptance and internalization of the norms, values, and culture of the organization, the concordance between aspirations, expectations and the possibilities to satisfy them;
- the perception of social protection within the school organization;
- organizational climate;
- the influence of the educational potential of the organization on its members.

The managers of the educational institutions consider the image of the educational institution they lead, as it results from the opinion questionnaire (item 3- How do you consider the image of the educational institution you run?) As:

3.1. Very good. / Excellent. (20.39%)
3.2. Favorable to the development of an efficient, optimal instructive-educational process. (2.43%)
3.3. In a permanent development. (17.07%)
3.4. Good. (21.95%)
3.5. The school has earned the respect and importance that all schools should have at the community level. (2.43%)
3.6. The institution offers quality educational services, professionalism, morality. (2.43%)
3.7. The institution has a well-defined image with visible, rising signs. (12.19%)
3.8. An image overshadowed by unfair competition from neighboring schools. (1.21%)
3.9. Integrative-inclusive school, for minorities: Roma, Muslims. (2.43%)
3.10. Positive, strong / intense, perfectible in agreement with the social partners. (17.07%)
3.11. An institution appreciated internally, externally. (1.21%)
3.12. A favorable image. (1.21%)
3.13. In the organization, for improvement. (1.21%)
3.14. Perfectible, being consolidated. (1.21%)

We notice that currently, customer service is the decisive starting point for many school organizations, but it has become vital for the strategy of the Romanian education system, as competition intensifies and the development of many educational alternatives.

4. Findings

The way in which the desired image is materialized in the transmitted messages, shows that in ensuring quality educational services, at all times, the sides of concern for customers must be reached.

The precise needs and desires of each person are difficult to quantify and it is difficult to gather information about all the factors that influence individual behavior.

5. Conclusions

Mathematics is a very important subject of study that helps us find many ways to solve a problem. And there are even more methods that seem to solve a problem, but which, in fact, do not lead to any results. In most cases, people consider prestige as a linear indicator, which can be located on a scale of the semantic differential type, with several levels, between "very good" and "very bad". In reality, consciously or unconsciously, they associate with each organization, person, etc. a set of connotations, which outlines a much more complex image of it. It is important not only to know if the image is good or bad, but also why it is good or bad, what is the exact content of that image. In this way we will be able to act in the direction of improving the image, an improvement which, in fact, is nothing more than a change in a favorable sense of the content of the image.

The mission of the educational institution has as main desideratum the transformation of the school into a provider of quality educational services, adapted to the socio-economic environment, which will satisfy the trust of the beneficiaries and ensure their socio-professional insertion.

The real image, perceived by the public and which corresponds to its representations about the school, is in fact what matters in the decision to use the educational services of the school.

The knowledge of the image that the target audiences have about an educational service is of great importance, because the image has the function of a formative element of opinions and attitudes, influencing the appreciations of the beneficiaries and thus their manifestations.

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The Art of Negotiating for Advantage

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Abstract

The negotiating process is absolutely fundamental to human communication and interaction. Negotiation typically involves a dialogue between two or more parties intended to reach a mutually acceptable solution, resolve points of difference to produce an agreement upon course of action and craft outcomes to satisfy various interests.

The aim of this paper is to discuss the importance of ascertaining positions in effective business negotiations from two points of view:

Firstly, an analysis of the basic steps of effective negotiation;

Secondly, the specific stages of the negotiating process which illustrate either the battle for power when styles collide or the amicable compromise when views are shared;

The results of the research show that we cannot blame anyone for trying to get the best deal and have a considerable advantage over their 'opponent' since the very essence of negotiation relies on the principle: 'If you don't ask, you don't get'.

Key words: basic steps, negotiating process, specific stages, win-lose, win-win
J.E.L. classification: Z00

1. Introduction

Building relationships requires that negotiators take time to understand the goals, values and beliefs of the negotiators on the other side since both sides "have a stake" in the outcome. People also share different cultures, attitudes, morals, behaviours and linguistic styles, all of which can greatly affect the outcome of the negotiation.

The word "negotiation" has a Latin origin, being derived from the expression *negotiatus*, past participle of *negotiare* which means "to carry on business", which in turn comes from *negotium* whose literal meaning is "business" (*neg* = "not" and *otium* = "leisure").

Negotiating helps business people to develop both the skills and language required to negotiate confidently and effectively in both formal and informal situations.

Many assumptions have been made on the art of negotiation, especially on what makes a good negotiator. There are three types of negotiators:

1. *Good* negotiators who take a long-term approach and make an effort to come to an agreement which proves to be advantageous for both parties involved in the business;
2. *Successful* negotiators who are flexible, open-minded and have a wide range of objectives enabling them to make concessions;
3. *Skillful* negotiators who always suggest reasonable solutions for any problem which may occur. They are persuasive, both good speakers and good listeners.

According to Dilts and DeLozier, "The primary NLP approach to negotiation is that of 'pacing and leading'. *Pacing* involves *matching* another person's map of the world. It is a powerful way of establishing rapport, and reaching agreement. *Leading* is the process of *changing* another person's map of the world in order to move closer to some desired outcome" (2000, p. 837). Thus, from a linguistic point of view, pacing involves reflecting back key verbal cues from the other person, having the flexibility to pick up and incorporate other people's vocabulary (their words and phrases) into one's own vocabulary. Leading, on the other hand, involves shifting to a new

perspective and a new resourceful state, and in so doing subtly attempting to influence another person's orientation in the desired direction (Dilts and DeLozier, 2000, p. 837).

2. Theoretical background

When analysing the ways of achieving business communication as far as negotiation is concerned, Ellerton (2006, pp.184-186) considers three basic phases/steps of negotiation: *planning*, *carrying out* and *wrapping up and the next steps*. Furthermore, I thought about improving Ellerton's approach, for example, I considered the second specific step: having a clear idea of whom one is to negotiate, of what you know about that person, of their beliefs and values, strategies and needs.

● ***Planning***

1. Generate options for achieving outcome. Prepare your arguments and strategies. Avoid a fixed position and choose the strategy that you are ready to accept or give.
2. Have a clear idea with whom you are negotiating. What do you know about them? What are their beliefs and values, strategies, needs and pressures?
3. Consider your BATNA (Best Alternative to a Negotiated Agreement). That means thinking carefully about what you will do if you don't reach agreement. Having an attractive BATNA will give you strength and confidence.

● ***Carrying out the negotiation***

1. Find out the common ground you share with the other side.
2. Understand which points will be the hardest to negotiate and ensure the other person is serious about negotiating. If an issue keeps getting in the way, ask, "What would happen if I were able to resolve this concern?"
3. Reflect on and identify back-and-forth communication areas designed to reach an agreement.
4. Dovetail outcomes and work toward an agreement on a common outcome. If the negotiation strays off the path, using raport, ask, "How is this relevant to the agreed purpose of the negotiation?". Chunk up to get agreement, and then chunk down to maintain agreement and finalize the details.

Practise a series of questioning (the language for questioning) and checking for confirmation. Get agreement on the best option and move to concluding the deal (make a useful record of all the points discussed).

● ***Wrapping up and the next steps***

1. Assess the impact (ecology) of the agreement on yourself and others.
2. Confirm what has been agreed and outline future actions - who will do what, by when, etc.
3. Thank everyone for taking part, write down and have the agreement signed.

(An adapted and improved version of R. Ellerton –"Making a Difference in Business", Chapter 8 of the book *Live Your Dreams. NLP and Common Sense for Coaches, Managers and You,* 2006, pp. 185-186).

Ellerton's three major phases remain in accordance with Bradbury's (2006) "dovetailing of outcomes" which business people may potentially develop in the process of interaction to reach a "win-win" result.

As Bradbury further argues, "the *dovetailing of outcomes* is made possible when both parties reach agreement on a point of common interest as the basis for the negotiations. It may be necessary to chunk up and down from your opening positions in order to find this common point" (Bradbury, 2006, p. 132).

It is worth noting, however, that within this 'dovetailing of outcomes', the focus is on establishing good rapport and introducing the notion of working as a partnership rather than "staging a war of attrition".

The language used when negotiating depends on your view of the negotiation. In a "win-win" type, the language will be quite open and exploratory, whereas a "win-lose" type is characterized by a much more direct language

Some business theorists (Louise Pile and Susan Lowe, 2006) label the basic stages of the approach to effective negotiation as: *prepare, discuss, propose* and *bargain*. In addition, other theorists (Christine Johnson and Irene Barrall, 2006) use the term *step* for the specific phases. I

focused on Johnson and Barrall's view of the negotiating process, using the term "step". Moreover, I agree with them that *preparation* is the first step of the negotiation activity.

Step 1 Preparation

A date has been set for a negotiation between Medilabs directors and two employees. The employees have invented a new piece of equipment which has improved production and reduced the company's manufacturing costs by 10%. The employees want credit for their idea and a financial benefit from the sales. The directors state that the company has full rights to anything they create during their employment and are reluctant to grant ownership rights to the inventors, although the idea was theirs.

Step 2 Negotiation proper

When negotiating, the two parts (directors; employees) make the most of their position by:

- being clear of their own position and proposal;
- explaining the benefits of their proposal and putting forward strong arguments;
- establishing their partner's needs and interests, and finding common ground;
- being aware of areas they can and cannot concede;
- asking questions to acquire further information;
- responding to proposals appropriately;
- summarising;
- aiming for a win-win solution.

***I. When negotiating styles collide*:**

A shining example of a battle for power in the world of business is offered by Johnson and Barrall (2006), where the directors and employees of a company fight to achieve a dominant position:

Table no.1 - When negotiating styles collide

Employees want:	**Directors want:**
- credit as inventors of the equipment. - a financial interest in the sale (a share in the profit of at least 20% each) - to keep their jobs	- to have control over the development and marketing of the new equipment. - the company to receive profits from the equipment sale. - to keep the two employees in the company.
Negotiating strategy: - Threaten to take legal action. It would be very expensive if you lost. Even if you won, you would still have to find the resources to manufacture and sell the equipment.	**Negotiating strategy:** - Stick to your rights. The employment contract gives you full rights to the invention; you don't have to give anything to the employees.

Source: (An adapted version of Johnson and Barrall's negotiating arguments and strategies, *Intelligent Business. Skills Book*, 2006, p. 98)

Employee 1: *You know what – we worked day and night on this invention; we sacrificed our weekends and families. We thought you would reward us for our good work. But now we see you want to take all the credt and profit. You have no right.*

Director 1: *But we do have the right. It's here in your employment contract which you signed, remember?*

Employee 2: *You could forget about our terms of employment and agree to the principle that it is our invention.*

Director 2: *It's easy to say, but look at it from our point of view. This could lead to other employees demanding the same rights if we give you the rights to this invention.*

Director 1: *I'm afraid you have no choice but to accept the company's position on this.*

Employee 2: *Oh, but we do have a choice. We can take you to court. If you don't agree to reward us financially and morally, we'll sue you.*

Director 1: *Very well, then. But if you do that, you'll suffer some very serious*

consequences. First, you risk a long and expensive trial. Second, you'll be putting your families' security at risk. Third, you have no business expertise and no capital to invest to develop the product yourselves.

Director 2: *So, even if you win, you'll be unable to bring it to market on your own.*

Employee 1: *It seems we can't find a way to agree on this so there's no point in continuing. You'll be hearing from our lawyers.*

II. A 'shared view'

Table no.2 – A shared view

Employees want:	**Directors want:**
- credit as inventors for the equipment. - a financial interest in the sale (a share in the profit of at least 20% each) - to keep their jobs	- to have control over the development and marketing of the new equipment. - the company to receive profits from the equipment sale. - to keep the two talented employees in the company.
Negotiating strategy: - Point out that the contract is unfair. The new equipment is your invention for which you should deserve credit. You have already poured money into the company and now the company will want to take full advantage of your invention. You persuade them to recognise your contribution and reward you for it.	**Negotiating strategy:** - Negotiate to reach agreement. Agree to some of your employees' demands and suggest that you take charge of product development and sales drive, but, at the same time, concede a good financial benefit to your employees (give them a one-off payment of € 150,000 or a 5% share of the profit).

Source: (An adapted version of Johnson and Barrall's negotiating arguments and strategies, *Intelligent Business. Skills Book*, 2006, p. 104)

Director 1: *I'm afraid you have no alternative but to agree to our terms. The company's position on this matter is very clear: license the product back to the company to develop and sell.*

Employee 1: *We believe there is another way to think it over.*

Director 1: *What other way?*

Employee 1: *Well, isn't the cream of our talent to achieve growth and ongoing success important to you?*

Director 2: *Yes, it is.*

Employee 2: *So, you would prefer us to stay with the company?*

Director 2: *Yes, sure we would.*

Employee 1: *If we make the company a success and put more ideas and innovations into the business, you'll be happy with the result. This is what we call contribution to profit. So, if you reward us, you'll continue to enjoy the benefit of our creativity.*

Director 1: *So, how can we find an acceptable solution to this? What exactly are you proposing?*

Employee 1: *All we want is credit for our invention and some share in the profit – a rate of return of, let's say, 7%. You'd still be in control of the development and have a major share in the financial returns. If we can find a way to agree on this, we'll both gain.*

Director 2: *I think they have a point. As a matter of principle, you should have right of ownership, and, in recognition of your achievement, we're prepared to give each of you a one-off payment of €150,000 or a 5% share of the profit.*

Employee 2: *O.K. We have an agreement.*

Negotiating with people in a strong negotiating position may seem daunting. Each version of the negotiation uses key language features and strategies for a good purpose.

In *version one*, i.e. "When negotiating styles collide", the directors are the ones in a powerful position, threatening and letting the other parties know they are in a weak position:

Version 1 → "Win – lose" type of negotiation – When the two parties collide

1. Subject: obtaining credit for innovation and a financial benefit from the sales
   Outcome: no deal, no win-win solution. The employees will take legal action.
2. In the event of a lawsuit, both sides risk losing a lot of money; moreover, the employees' sparing no expense for winning the process would be posing a serious risk for their families' security.
3. The **strategies** used to try to break the deadlock are:

a) coercieve (explaining the negative outcomes for the other side if they don't agree)

Specific coercive phrases for employees:

"We can *take you to court*", "If you don't reward us financially, *we'll sue you*", "*You'll be hearing from our lawyers"*.

Specific coercive phrases for directors:

"I'm afraid you *have no choice but to accept* the company's position on this", "*You'll suffer very serious consequences*".

b) argumentative (putting forward strong reasons and arguments)

Specific argumentative phrases for employees:

"We *worked day and night* on this invention", "We *sacrificed our weekends* and *families*", "*We thought you would reward us for our good work*", "...it is *our* invention".

Specific argumentative phrases for directors:

"We do have the right. *It's here in your employment contract...*", "*This could lead to* other employees demanding the same rights *if we give you the rights* to this invention", "*First*, you risk a long and expensive trial. *Second*, you'll be putting your families' security at risk. *Third*, you have *no business expertise*, *no capital* to invest to develop the product yourselves".

It is not advisable to threaten, argue with others, take control of things by being tough, or win people over *only* to your way of thinking.

Version 2 →"Win-Win" type of negotiation – When the two parties share the same view

1. Subject: obtaining credit for innovation and financial benefit from the sales
   Outcome: a win-win solution, reached agreement.
2. It is likely that both sides will gain from this compromise.
3. The **strategies** used to try to break the deadlock are:

a) *argumentative* (stress the benefits of finding a solution)

Specific argumentative phrases for employees:

"If we make the company a success and put more innovations into the business, you'll be happyy with the result", "If you reward us, you'll continue to enjoy the benefit of our creativity", "If we can find a way to agree on this, we'll both gain".

Specific argumentative phrases for directors:

"The company's position on this matter is very clear...", "...in recognition of your achievement, we are prepared to give each of you €150,000, or a 5% share of the profit".

b) *finding common ground* (introducing ideas that the other side can agree with)

Specific "common ground" phrases for employees:

"you would prefer us to stay with the company?"

Specific "common ground" phrases for directors:

"So, how can we find an acceptable solution to you?"

The win-win approach is generally considered the best approach to negotiation as both parties involved are successful by achieving some or most of their aims.

3. Research methodology

In my research, I have used three major negotiation phases and their specific steps with the aim of focusing on certain business techniques for reaching goals, coming to an agreement, making and responding to proposals, negotiating a win-win solution. I insisted on the description and interpretation of the dovetailing of outcomes which are illustrative of the patterns that negotiators

normally use in the case of establishing good rapport /vs/ fighting for a dominant position. In this case, I have concentrated on the arguments and strategies which led me to consider that, in interpersonal dealings, taking multiple perspectives is a useful asset.

In the first stage, I identified the specific steps of the negotiating process. In the next stage, I approached two styles of negotiation and their key language features. From a linguistic point of view, my research method was based on highlighting the role of linguistic strategies businesspeople use when interacting. It cast a light on the psychological profile of different interactants as well as their strong and weak points. I focused on specific negotiating expressions, separating them into coercive/argumentative phrases and 'common ground'/argumentative phrases, by analyzing their contextual occurrences.

Basically, my research has shown that the aim in a negotiation relates first to our physical and psychological 'comfort', to our sense of well-being and second to the well-being of the other party. Moreover, in analyzing specific business exchanges, I have been aware that back-and-forth communication is specially designed to reach an agreement when the two sides have some interests that are shared and others that are opposed.

4. Findings

The findings indicate that an essential contribution to effective negotiation is the ability to consider multiple perspectives by taking different 'perceptual positions'. Finding a shared solution between two parties, for example, involves the ability to take 'second position' as well as expressing the situation from your *own* perspective, i.e. 'first position', by explicitly showing desires, doubts and concerns.

The plain truth is that we cannot blame anyone for trying to get the best deal and have a considerable advantage over their 'opponent' (typically by using conditional sentences, questioning techniques and other grammatical constructions for making suggestions, concessions, hypothetical proposals in bidding and bargaining) since the very essence of negotiation relies on the principle: 'If you don't ask, you don't get'. As James Borg (2007, p. 186) remarks, "Just because somebody asks for something, it doesn't mean it has to be given. If both parties are dissatisfied then the equation is not right. Remember – it's a game with two winners. [...] In any relationship, whether it be personal or workplace-related, if only one of the parties wins then the *relationship* loses. The aim is to satisfy the needs of both sides of the relationship to secure a win-win situation".

5. Conclusions

In the psychology of negotiation, the importance of ascertaining positions can lead to either *fluid* or *stalemate* situations.

The advantage of delving into the other party's interests through empathetic listening, specific argumentative and "common ground" phrases is that we can instantly hold attention, reap the benefits of all the hard work and make amicable compromise with the purpose of reaching a *'shared view'*.

The disadvantage of not being eager to make concessions, putting pressure and placing only demands on the other party, getting mired in a battle of wills can influence the process of negotiation in a negative way and make it deviate from its normal path. Furthermore, when *styles collide*, this feeds the ego struggle and the stubborn refusal to concede, eventually resulting in opposing interests and unresolved conflicts.

To recap, success in dealing with various types of people highly depends on the level of *rapport* and the spirit of cooperation we establish with the other side from the early stages of the negotiation process.

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Section IV

Marketing – Management

Management Practiced in Education Systems

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Abstract

The term management is a comprehensive one in terms of its connotations, especially since the management process has its applicability in a variety of areas. The basics of management are the same, regardless of who and in what activity it is practiced, but a significant aspect of a qualitative management is the ability to adapt and evolve.

Educational management is a linear process, with too little evolution and development, even more so in the Romanian state system. Things seem to be progressive in the private system, where, although the biggest disadvantage of parents are the significant fees of the courses, the involvement of the staff is remarkable, which indicates that the management is a successful, development-oriented one.

The aim of this paper is to understand the concept of educational management and how it is applied in both the state and private education system.

Key words: educational management, poor management, state education, private education
J.E.L. classification: I21

1. Introduction

The foundation of this paper is educational management, an element without which the education system cannot function in normal parameters. To follow a logical line, we will focus in the first part on the term of educational management, followed by an analysis of how management is practiced in public and private schools. We will also consider the conceptual terms of the management process to understand in depth the meaning of educational management.

Once analysed separately the two types of education systems, we will draw a delimitation between the way in which each educational system is managed, identifying the similarities and differences between them; at the end of this paper we will understand why there is a discrepancy between the way the two types of educational units work.

2. Theoretical background - Education management

The management concept has significant valences in each sphere of activity. However, when management is associated with the term education, it seems to acquire even greater significance and responsibility; the association being made with education, a value that underlies humanity, it is fundamental to have rational and correct management activity practiced in schools (Cornescu et al, 2001, p. 73).

The elements that define the educational management process must allow its delimitation as a system of actions designed for the efficient functioning of the education system and process.

Management is driven by two essential activities: leadership and coordination. In order to achieve the proposed objectives, the managerial path to be followed to achieve them is established. The basics of quality management are the same, regardless of the field in which it is practiced; what differs are the actions that are taken. Each sphere of activity is differentiated by its own characteristics, so that the managerial actions undertaken must be adapted and directed towards the established objectives (Zlate, 2007, p. 49).

Are managers born or can they be transformed by education? This is a controversy that many experts are opposed to, some being on one side of the barricade and others on the other. What is certain is that there are people who are born with managerial skills, so that the process of deepening the managerial field is made easier for them; things seem natural and easy to implement for the category of those who are endowed with such skills. However, those who are not born with managerial skills can self-educate and undertake managerial qualities through learning and improvement. Specialization in management is a constantly evolving process, although management has the same foundation for any field in which it is applied. As each area of activity has its own characteristics, there is a need for a management capable of adapting to various situations.

Romania's state education system is a precarious, insecure and chaotic one, a fact caused by a faulty management that starts, first of all, from the country's management. This subject related to the education system is a sensitive and difficult to digest for most of those who come into contact with it or work through it.

In the following lines, we will make an analysis of the state and private education system, later emphasizing the common aspects and understanding what elements distinguish them.

3. Management of the state education system

The education of children studying at the state is provided free of charge. In certain circumstances, the free of charge of some services does not imply too many obligations and pretensions, a situation that also applies in the educational field in Romania. Poor management of the education system is caused, first of all, by the unpreparedness of those in the management position; secondly, the interest and involvement of the management in the good performance of the educational institutions are directly proportional to the monthly income, thus, the lower the salary, the lower the performance.

In the management of state schools there are teachers with or with too little experience gained over the years, who have crowded chairs, so once they leave the classroom, they need to enter the role of manager. This dual position can create challenges for both the role of teacher and the head of the institution. The duality faced by public school managers is a common, normal and real one in state education systems; the premise of this double position is that the one in the position of manager can understand undistorted the educational system, he is already familiar with the way things happen in the institution from the position of teacher, thus being suitable for the role of head of the unit. However, this situation is risky for the smooth running of the education system. Dividing energy and attention into two completely different activities is one of the aspects that can have negative effects on the management of the institution. The situation in which a teacher becomes the manager of the school is a comfortable and predictable one, especially if he has a history in that institution, he is already familiar with how things work, but this neglect only pushes education towards regression (Cristescu , 2004, p. 57).

According to the controversy mentioned above, regarding born or learned managers, it is certain that it takes time, energy and desire to learn to learn from the skills of an effective manager. The efficiency of a manager can decrease significantly if his attention is distributed to the activities of the teacher.

The impact that school management has on educational outcomes is strong. There is a need for an increase in the quality of management of public institutions through active and continuous involvement to achieve the proposed educational objectives, so that, implicitly, there is a need for involvement in the management of the public education institution.

In Romania, the attributions that the directors have are mainly administrative, a practice not encountered at all in the developed countries, OECD members, focused on the transformation and development of the educational process. In order to improve the educational system, it is a priority for the managers of the educational units to learn and accept the responsibilities that come with this profession of manager. The current directors must take into account the objectives set by the unit they represent and establish a path to guide the actions towards their fulfilment. At the same time, it is a priority for managers to pay attention to the way in which teachers organize their classes, precisely in order to come up with solutions that improve the classic way of teaching. It is also the manager's responsibility to analyse the students' results, so that depending on the progress and,

especially, the regression, it is necessary to understand the aspects that prevent their development, following to identify the necessary solutions to rectify the situation.

We live in an era of transformations and ever-evolving things, so that each generation of students that comes after has its own characteristics: strong personality and innate independence, which is why adapting the education system to the times we live in is paramount (Schleicher, 2015, p. 22). There is so much ferocity on the part of parents about schools that these feelings should raise some questions about managers. Schools in Romania are often compared to those in more or less developed countries, where there is a current education system, well prepared, where interaction with students is a priority and where the choice of subjects by children seems to be extremely beneficial for their education and their mood. It is certain that the new generations may be more difficult to master, but what burdens the communication with students even more is a backward management, not adapted to the times we live in, where the teaching of teachers is based on the classical foundations, which worked too many years ago.

The state education system is all the more deficient in rural areas, where children come from disadvantaged backgrounds and from families with too limited financial resources to afford to purchase even what is strictly necessary for school. Managers of such schools face challenges on a daily basis, which is why integrity, dedication and performance are needed to succeed in creating the right climate for students who are prone to early school leaving.

Romania has one of the highest dropout rates in Europe (15.3% in 2019), an alarming situation that calls into question the management of schools (Wall-Street, 2019).

In the following lines we will analyse the functioning of private schools in Romania, later comparing the two types of education. At the end of the analysis we will know the reasons why the private system is a fruitful one compared to the state one.

4. Management of the private education system

The private education system is becoming a current trend, with many parents with a stable financial situation seeing this way of education as the only option for their children. Private education is expensive, so only a small percentage of the population can afford the annual expenses of private education, which can reach tens of thousands of euros. However, leaving aside the trend created with private schools, the private education system demonstrates constant performance year after year compared to the private education system.

What is the reason why in private schools there can be performance and interest from students, while in the state there are more and more dissatisfaction? The correct answer: leadership. The type of management practised in private schools is focused on development, dedication and performance. The attention that private schools pay to the education of children by challenging children actively in the classroom is one of the most important activities that the management of this type of education practices.

One of the reasons why private schools become interesting even for children can be teachers of different nationalities, a situation often encountered in international schools. Multiculturalism is a key element that defines private education, so it is not only teachers who come from different parts of the world, but also students. The ability of children of different nationalities to communicate and get in touch with different cultures only contributes to the cognitive development of children, helping them to become independent and sociable (European Commission, 2018s).

Private education management also considers the challenge of teachers; class hours must be interactive, in which there is uniqueness, so that children become curious and actively involved in lessons. Leading private education allows children of a certain age to be able to choose subjects that are of greater interest to them. If up to a certain point all the basic subjects are studied, at an age when children become aware of the affinities they have for certain areas, they will be encouraged to choose the classes that interest them.

Private school managers are significantly involved in the smooth running of things. The development of the student is paramount for the management of these schools, so that all the necessary conditions are created and offered so that the child's mood is always trained and in a good mood. The leaders of private education, of course, also take into account the comfort of teachers.

When it comes to the class of each teacher, he becomes a manager on the subject taught, so he has free rein in managing and creating his own teaching method. Private education management aims to boost creativity, which is why these schools are so appreciated and desired by parents for their children.

With a management aimed at creating the necessary conditions for students, private schools provide them with breakfast and lunch, the possibility of after school hours and even hours of sleep for the little ones, so that parents, once they finish their program at work, take children at school and can carry out family activities, they are already eaten, with lessons learned and even asleep.

Another aspect practiced by private management is the creation of classes with a small number of students, the goal being that the teacher can share his attention proportionally for each of them.

In the private education system, the term leadership can also be approached, a term that is too little present in the case of the state education system. The concept of leadership is an extension of management, so management can exist without leadership, but leadership cannot be practiced without management. In private education there is a desire to change, inspire and motivate staff. Compared to management, leadership considers the vision of what can become an educational unit, which is why staff are encouraged to cooperate, teamwork being essential for achieving the goals set (Adair, 1973, p. 87).

There is a need for a well-made management, which should take into account the good approach of the organization, so that the obstacles that appear along the way can be overcome successfully due to the established concrete plan.

5. Practicing management in state education vs. private education

In the basic sense, the management is the science or art of leadership, managing to mobilize human resources to meet the objectives set by management. Like the controversy over born or educated managers, the management process is called into question when it comes to its nature: science or art? There are various ways in which researchers argue why management is science or art, but it is certain that, regardless of its nature, management has the same purpose.

From our point of view, the management has both scientific and artistic values. In terms of science, management needs to be accurate and can be subsequently analysed and measured. From the point of view of art, it takes imagination, an inaccurate science, which is activated in each manager in a particular way, the management being foldable and managing to adapt to various situations.

Management is a complex, systematic process, which outlines the path to be followed, those who participate in the process being coordinated by the person responsible for the good approach to the institution. The objectives that are drawn through the practice of management can be measured and dimensioned to identify if the point reached is the established one.

For the management process to exist and be effective, it requires the involvement of managers, a situation rarely encountered in the state education system. Because the country's management is a deficient one, in which the deficiencies are felt significantly, this situation is also felt on the state institutions. With a poor management model, how can management in educational institutions be productive? The disinterest of those in charge has serious consequences for the way the education system works, which is why the subject of state school studies has become sensitive and outrageous for many parents. (James, 1982, p. 26).

Following the analysis of the two education systems we can notice an important difference in the level of involvement of managers in educational activities. If in private education the involvement of management and teachers in the quality of students' education can be observed, in the state system the interest of practising a qualitative management is missing. This difference between the level of interest between the two types of systems is caused by several factors: the financial remuneration of the work, the conditions in the schools, the professional training, the personal character. The state education system struggles with unqualified managers, who reach this position from the position of teacher, having no training in the field of management. In the case of private education, in most cases there are staff trained to take over a management position. The level of training of the manager can be an element of differentiation between one educational unit and another. Also in this context it can

be mentioned that often the managers of private schools are the owners of the business, so that, implicitly, the level of involvement is at maximum levels, while the managers in the state system are simple employees, without personal involvement.

In Romania, at the moment, the state education system prevails, but not because there is no potential in the private one, but because too few parents can afford the annual fees imposed on the private sector, which is why state education is the main option. Unfortunately, due to the state education system, many parents make compromises in terms of their children's education, enrolling them, with not much conviction, in state schools.

There are differences in the management functions between the training of managers in state and private education. Like the ones mentioned above, in public schools there are certain conditions that the candidate for the position of principal must meet, and one of them is a degree in pre-university education, with a length of service of at least four years. There is, however, the requirement to prove, in at least three years, professional, managerial and moral qualities. However, with a disciplinary behaviour qualified as very well, without direct links with the management process, how can the person be qualified for such a position, which is subordinated to an entire educational unit? The disinterest with which the laws are written, without taking into account the effects that some aspects that cannot be taken into account can have, leads to an indoctrinated and backward educational system (Gherguț, 2007, p. 128) .a

As for the private education system, the situation is encouraging. The managers of these institutions are often trained in the field of management, so they know the steps to be followed for effective management. There is interest and involvement in private schools, both from teachers and especially from those in charge; this active attitude can be observed through the results and the multitude of activities that private educational institutions practice.

In the creation of this article was based on the qualitative analysis of the information as a research method. We chose a qualitative approach because we considered it relevant in dealing with the subject of educational management. Because qualitative research allows a detailed study, the information we analysed led to the creation of an article that highlights the concept of management and how it is applied in private and public education institutions. The analysis of the identified information helped us to draw a delimitation between the two types of educational institutions.

6. Research methodology

As a method of research used, qualitative analysis of information was the basis for the implementation of this article. The reason we chose a qualitative approach was the subject - Educational management, which required detailed research. Since qualitative research allows for a thorough study, the information we have analysed has led to the creation of an article highlighting the concept of management and how it is applied in private and public educational institutions. Analysing the identified information helped us draw a line between the two types of educational institutions. This type of research allows to treat topics in depth, helping to understand and interpret information.

7. Conclusions

Flexibility, the ability to adapt and modernize the state education system are needed. The backward practices that are still practiced in schools only make it difficult for children to access education and cause them feelings of revulsion towards the educational institution. In a century in which fields are developing rapidly and in which every generation of children that comes is in trend with the times, the state education system has become vulnerable, insecure and backward.

After analysing the two types of education systems we can note the following aspect: state education is focused on quantity and not quality, while private educational institutions are guided by the premise that quality prevails, not quantity; this also explains the difference in the number of children enrolled in classes. If in private schools there are even 30 students per hour, in private institutions the average is somewhere between 13-15 students. Once the number of students is higher, more misunderstandings occur, and a significant problem with the large number of children is the

attention that the teacher must share equally to such a large number of students. This situation does not apply to private schools, where the number of students in the class is limited, so that teachers can deal effectively with each.

Romania needs modern managers in the state leadership, first of all, where the entire public activity starts. Of course, there is the category of managers who, regardless of how things work in their higher hierarchy, do not deviate from the proposed goal and the objectives set; managers who fall into this category can be called leaders.

The management process is a complex and continuous one in which involvement, determination and adaptability are indispensable to function. Because Romania's evolution is not at the same level as the time we live in, most state institutions have poor management, with too many shortcomings.

We conclude the analysed information by mentioning the fact that the managers of the education systems, especially the state, should go through a path of training and managerial development, following which to learn the basics of the field of management; it would be beneficial for this training path to be completed before managers are appointed.

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Research on Rewarding and Impact of Rewards on Performance

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Abstract

Public institutions must develop performance indicators to measure the progress made toward achieving the stated objectives. The performance management system aims to measure individual performance by defining the critical contributions expected during the year, compared with the actual achievements at the end of the year. Based on the performance evaluation, the managers should decide to reward or sanction the staff according to their progress towards achieving the objectives. Therefore, it is essential to evaluate the effects of the reward on performance. In the paper, we aim to evaluate the influences of reward on individual and collective performance in the tax administration.

Key words: performance, managers, supervisors, reward
J.E.L. classification: L25

1. Introduction

To use the full potential of employees, managers need to know what stimulates them to increase their level of performance so that this energy can be channeled appropriately to specific results, which add value to the resources consumed in the production process. A motivational work environment is one of the critical forces that stimulate individuals to ensure superior performance (Sitnikov and Bocean C.G. 2010; Sitnikov et al. 2017). The motivational work environment increases morale, creates professional satisfaction, reduces unnecessary stress, decreases absenteeism, and the rate of abandonment of the organization by employees, promotes performance; in other words, motivates employees. Moreover, managers' supportive behavior is one of the crucial factors in creating a motivational work environment (Varzaru, 2015). Creating a positive work environment in which employees are productive is a fundamental responsibility of every manager. One of the fundamental factors underlying creating a motivational environment is a reward that decisively influences individual and collective performance.

The paper contains five sections. The first section provides an introduction to the research issue (influence of employees' reward on performance) and the second section gives a brief theoretical background of the researched issue. The third section describes the research methodology. The fourth and fifth sections deliver the results and conclusions of the research.

2. Theoretical background

Creating a motivational job is essential to an organization's success, and managers can create motivational jobs for their employees by establishing and maintaining good relationships, cultivating teamwork, and encouraging innovation (Ruth et al., 2012). Leblebici (2012) argues that a motivational work environment is essential because it motivates employees to perform better and productivity. The workplace environment can positively and negatively impact employee morale, productivity, and employee involvement. As such, the creation of a motivational work environment must be the goal of all managers because work environment factors influence employee involvement in their immediate environment, quality of work, level of innovation, teamwork, absenteeism, and, finally, length of employment in the organization (Aubray and Bailey, 2014). One of the crucial ways to create a motivational work environment is to adopt a leadership style that positively impacts

employees' ethics, behavior, commitment, professionalism, leadership, and interpersonal relationships (Aubray and Bailey, 2014). Aubray and Bailey (2014) add that a motivational work environment can also be created if managers provide the necessary support for their employees. Management support can be demonstrated by delegating responsibilities to the necessary authority, holding employees accountable for their actions, encouraging teamwork, displaying confidence in team members' ability, and treating them as professionals (Varzaru et al. 2012; Varzaru and Varzaru, 2013, 2015). Such an environment will promote trust, loyalty, and identification with the organization and influence the quality of work, innovation, and team spirit. Also, direct managers must act as employees' lawyers before senior management. Moreover, they must provide positive recognition and encouragement when the work is well done (Bocean, C. G., 2007; Murphy et al., 2018).

The main factor contributing to a motivational work environment (Sternberg and Turnage, 2017) is the provision of incentives in the workplace, management ensuring that the rewards must correspond to the efforts and performance obtained by comparing with the standards initially set.

3. Research methodology

In order to examine and explore the perceptions of managers and supervisors within the National Agency for Fiscal Administration in Romania regarding the influence of employees' reward on performance, we conducted a qualitative study on a sample of 35 managers and supervisors within the Regional Directorate General of Public Finance Galați (DGRFP), the regional structure within the National Agency for Fiscal Administration in Romania, which participated in a survey based on the questionnaire. To build the sample among managers and supervisors, we used the proportional stratified sampling method. The sample of 35 people respects the structure of human resources within the DGRFP by age, sex, and seniority.

Starting from the specialized literature and exploratory research, we selected eight variables of reward for which the managers gave answers on a Likert type scale with five levels (from total agreement to total disagreement). Table 1 presents the 11 factors.

Table no. 1. The variables of reward

Variable	Factors
VAR01	How to finalize the additional rewards
VAR02	The effects of not awarding additional rewards on employee
VAR03	The relationship between additional rewards (bonuses, bonuses, or
VAR04	Existence of a fair, fair, and objective reward process
VAR05	Stimulating employees who have not received rewards to work harder
VAR06	The direct relationship between performance rewards and employee performance
VAR07	The influence of the performance reward system on employee morale

Source: Developed by the author

Also, in the research, we used three individual variables for performance: managers' and supervisors' perceptions of managers' and supervisors' performance (direct heads) - VAR08, subordinates' performance - VAR09, organizational performance (of the organization as a whole) - VAR10, and an aggregate variable in the form of an average reward score (SMR). The variables that illustrate performance have possible values between 1 and 10, values given by managers and supervisors within DGRFP.

The research in the paper involves testing and validating the following two hypotheses:

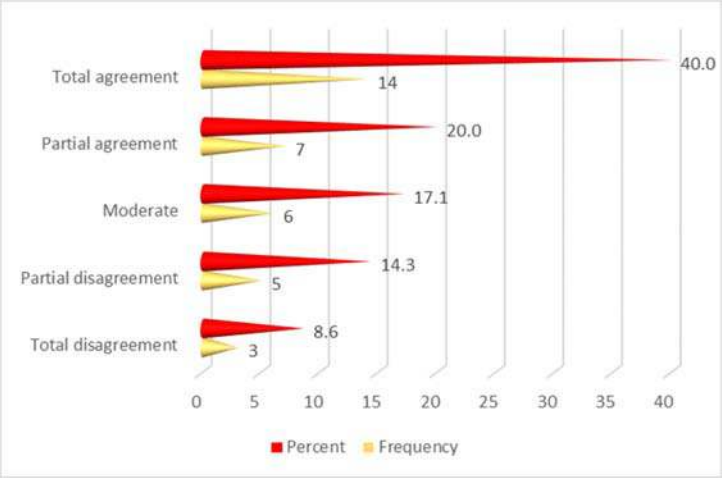
H1. Managers and supervisors believe that there is an adequate reward system.

H2. The current reward system has a good effect on performance levels recorded in managers and subordinates' perceptions, significantly influencing them.

4. Findings

Researching the validity of the H1 hypothesis involves studying the frequencies of the variables VAR01-VAR07. Analyzing the perception of managers and supervisors regarding the final allocation of additional rewards (individual variable VAR01), we observed that 60% of the managers and supervisors surveyed totally or partially agree with the statement that they have no say in the final allocation of additional rewards (bonuses, bonuses or bonuses) (figure 1).

Figure no. 1. Managers 'and supervisors' perceptions of the final allocation of additional rewards

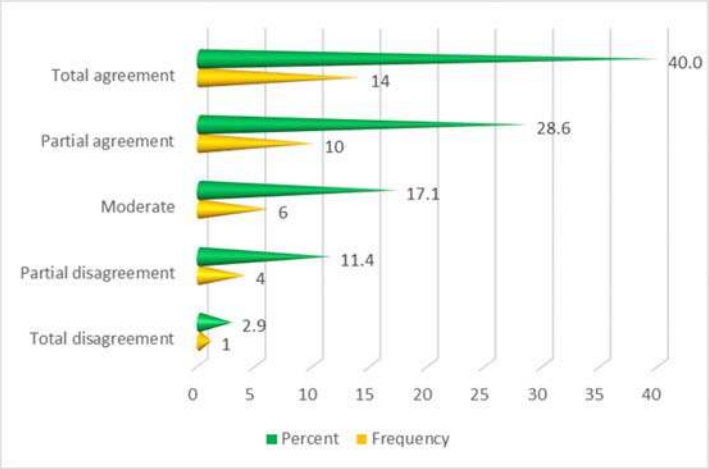


Source: Developed by author

A high percentage of surveyed managers and supervisors (representing approximately less than 22.9% of the total respondents) partially or disagree with this statement.

Researching the perception of managers and supervisors on the effects of not awarding additional rewards on employee performance (individual variable VAR02), we found that only a relatively large number of respondents (68.2% of total respondents) partially or agree with the statement that when employees do not receive any additional rewards (bonuses, bonuses or bonuses), this affects their performance (figure 2). A percentage of 14.3% of the surveyed managers and supervisors strongly or disagree, while 17.1% are in a moderate position.

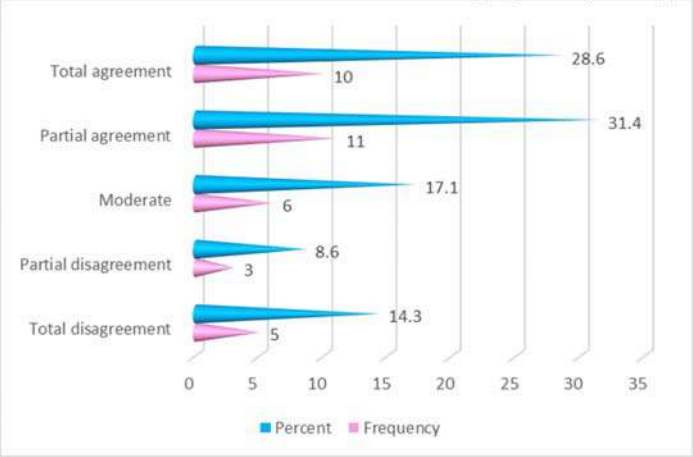
Figure no. 2. Managers 'and supervisors' perceptions of the effects of not awarding additional rewards on employee performance



Source: Developed by author

Examining the perception of managers and supervisors regarding the relationship between additional rewards (bonuses, bonuses, or bonuses) and objective performance of employees (individual variable VAR03), we observed that 60% of managers and supervisors surveyed partially or agreed with the statement that additional rewards (bonuses, bonuses or bonuses) are attached to the objective performance of employees (figure 3). 22.9% of respondents disagree partially or entirely with this statement.

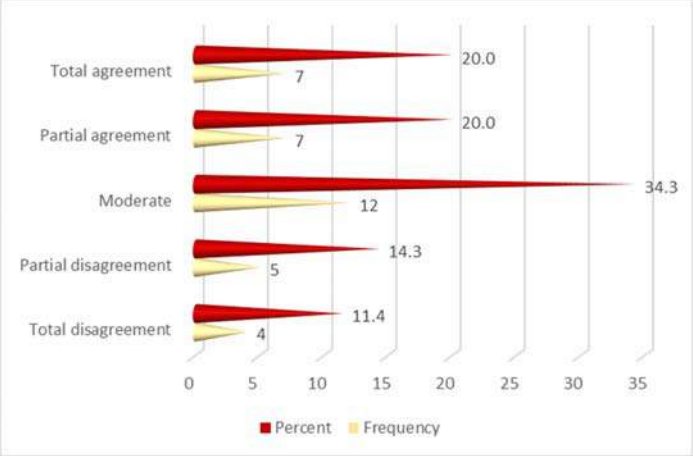
Figure no. 3. Managers' and supervisors' perception regarding the relationship between additional rewards (bonuses, bonuses, or bonuses) and employees' objective performance



Source: Developed by author

Examining the perception of managers and supervisors regarding the existence of a fair, fair, and objective reward process (individual variable VAR04), we observed that only 40% of managers and supervisors surveyed partially or agree with the statement that even those employees who do not receive Performance rewards are satisfied because they are convinced that the rewarding process is fair, fair and objective (Figure 4).

Figure no. 4. Managers' and supervisors' perception regarding the existence of a fair, fair, and objective reward process



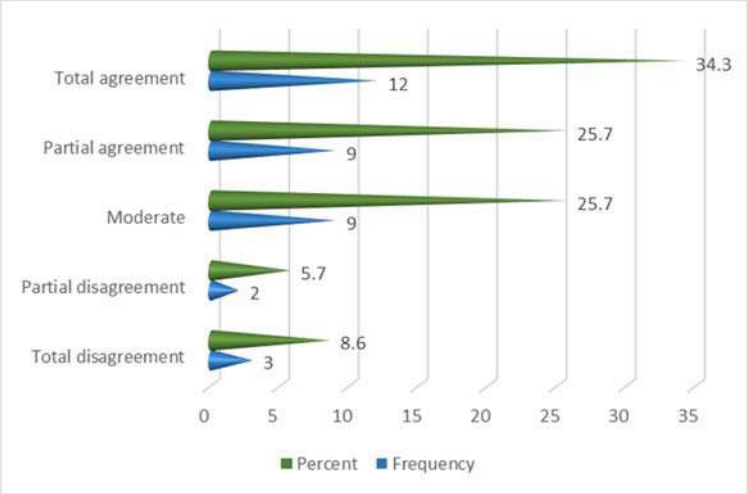
Source: Developed by author

34.3% of respondents are in moderate positions, while over a quarter of managers and supervisors surveyed partially or disagree with the statement.

Analyzing the perception of managers and supervisors regarding the stimulation of employees who did not receive rewards from working more (individual variable VAR05), we observed that 60% of managers and supervisors surveyed partially or agreed with the statement that the rewards system

encourages employees who did not receive rewards for working harder (Figure 5). Nine of the managers and supervisors surveyed are in moderate positions, and only two respondents partially or disagree with this statement.

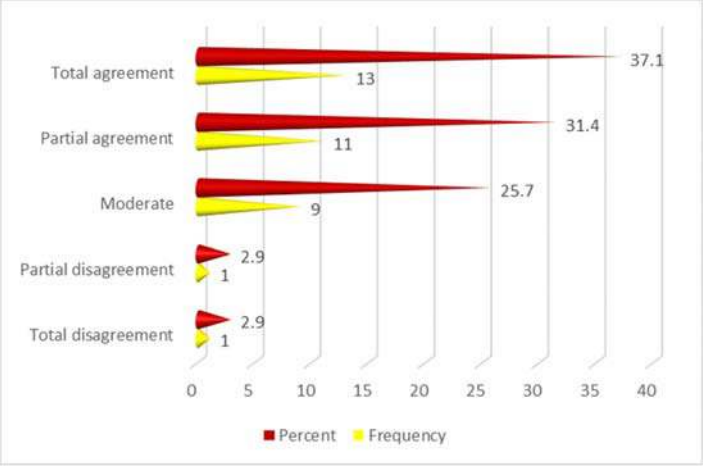
Figure no. 5. The perception of managers and supervisors about stimulating employees who have not received rewards to work more



Source: Developed by author

Examining the perception of managers and supervisors regarding the direct relationship between performance rewards and employee performance (individual variable VAR06), we observed that 68.5% of managers and supervisors surveyed comprehensively or partially agree with the statement that all employees who received rewards performance-related within the department are more efficient than those who did not receive rewards (Figure 6).

Figure no. 6. Managers and supervisors' perception of the direct relationship between performance rewards and employee performance

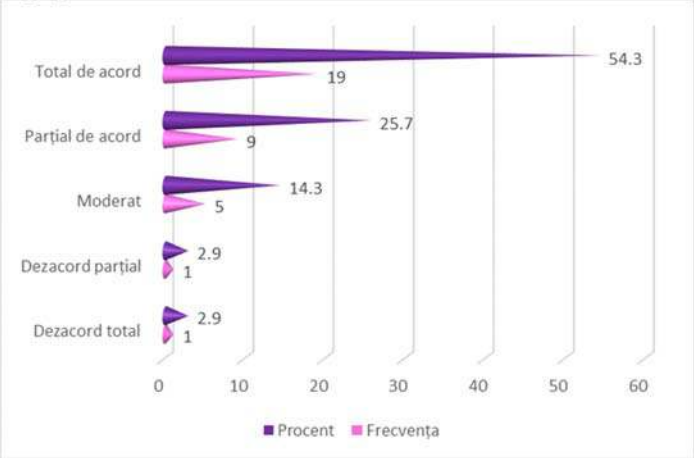


Source: Developed by author

Researching the perception of managers and supervisors on the influence of the performance reward system on employee morale (individual variable VAR07), we noticed that there is a vast number of respondents (80% of managers and supervisors surveyed) who totally or partially agree with the statement whose performance system increases employee morale in the work environment (Figure 7).

Analyzing Figure 7, we also noticed that a relatively large number of managers and supervisors (14.3% of all respondents) are in moderate positions, and only two managers or supervisors are in total or partial disagreement.

Figure no. 7. Managers 'and supervisors' perception of the influence of the performance reward system on employee morale



Source: Developed by author

Researching the validity of the H2 hypothesis involves studying the correlations between the variables VAR01-VAR05, VAR08-VAR10. To establish the influences of the variables that illustrate the reward on the variables that illustrate the individual and organizational performance, we calculated the correlations between the respective variables (both individual and aggregate in the form of average scores). Table 2 presents the correlations established among the variables that illustrate the reward, individual performance (of managers and supervisors, subordinates), and organizational performance, at the level of managers 'and supervisors' perception.

Table no. 2. Correlations among variables that illustrate reward, individual and organizational performance, at the level of managers' perception

		Managers 'and supervisors' performance VAR08	Subordinates' performance VAR09	Organizational performance VAR10
VAR01	Pearson correlation	0,143	-0,168	0,010
	Significance	0,414	0,336	0,956
	Number of cases	35	35	35
VAR02	Pearson correlation	0,097	-0,115	0,074
	Significance	0,580	0,511	0,674
	Number of cases	35	35	35
VAR03	Pearson correlation	0,256	0,372*	0,174
	Significance	0,138	0,028	0,318
	Number of cases	35	35	35
VAR04	Pearson correlation	0,186	0,297	0,102
	Significance	0,285	0,083	0,559
	Number of cases	35	35	35
VAR05	Pearson correlation	0,288	0,389*	0,256
	Significance	0,094	0,021	0,137
	Number of cases	35	35	35
VAR06	Pearson correlation	0,497**	0,459**	0,293
	Significance	0,002	0,006	0,088
	Number of cases	35	35	35
VAR07	Pearson correlation	0,333	0,289	0,290
	Significance	0,051	0,093	0,091
	Number of cases	35	35	35

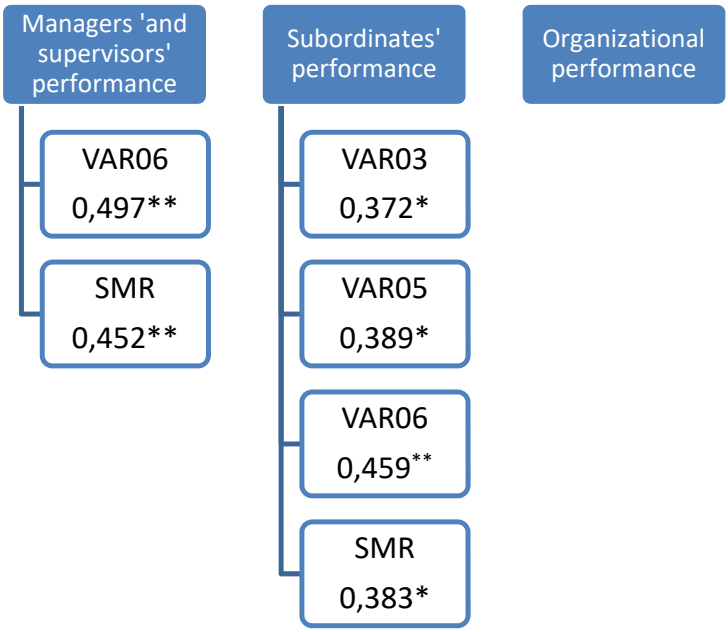
SMR	Pearson correlation	0,452**	0,383*	0,296
	Significance	0,006	0,023	0,084
	Number of cases	35	35	35

** *Strong correlation;* * *Medium correlation*

Source: Developed by author

In figure 8, we summarized essential correlations established between the variables that illustrate the reward, individual and organizational performance, at the level of managers 'and supervisors' perception.

Figure no. 8. Significant correlations between variables that illustrate reward, individual and organizational performance, at the level of managers' perception



Source: Developed by author

In the perception of managers and supervisors, the variables that most influence the performance of managers and supervisors are: the direct relationship between performance rewards and employee performance (individual variable VAR06), stimulating employees who did not receive rewards from working more (individual variable VAR05), the relationship between additional rewards (bonuses, bonuses or bonuses) and objective performance of employees (individual variable VAR03). It should not be overlooked that in order to achieve organizational performance and the performance of subordinates, managers and supervisors believe that all variables must be considered, which results from the correlations of the average reward score with the variables that illustrate performance.

5. Conclusion

A motivational work environment can be easily differentiated from a work environment that does not encourage motivation through its characteristics. According to Colquitt (2017), an unfavorable work environment is characterized by unfriendly and critical managers, low employee morale, high employee fluctuations, lack of feedback, and employees' lax attitude. A motivational work environment is characterized by managers with encouraging attitudes that show interest in their employees and loyal employees who are proud of working. Such a work environment is characterized by further declining employee dropout rates, higher employee morale, higher loyalty, and higher productivity. The most important factor that induces the creation of a motivational environment is the reward. The reward has a decisive influence on organizational and collective performance.

Following the research of the H1 hypothesis, we can say that this hypothesis is validated. Managers and supervisors believe that there is an adequate reward system. The conclusions we reached after researching this hypothesis are in line with the findings of Sternberg and Turnage (2017), which suggest that there are three essential dimensions to job satisfaction, namely: the emotional response to a work situation, the result meets or exceeds expectations and the attitude related to the characteristics of a job. For example, if employees feel that their manager does not recognize their hard work, they may develop a negative attitude toward work, the manager, and colleagues. On the contrary, a positive attitude will result if they consider that they are treated fairly and receive the rewards and recognition they expected. The third dimension of job satisfaction refers to the attitude related to a job's characteristics, such as work itself, reward, promotion opportunities, supervision, and colleagues.

Following the research of hypothesis H2, we can say that this hypothesis is validated. The current reward system has a good effect on performance levels recorded in managers and subordinates' perceptions, significantly influencing them. The conclusions we reached after researching this hypothesis are in line with Amos et al. (2004) 's findings that managers can provide their support by involving subordinates in setting goals and allowing them to manage their performance. Setting goals together with employees helps clarify the expected performance standards, measuring performance, the skills and resources needed to achieve the goals, and the rewards associated with achieving the agreed goals.

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Exploring the Relationship Between Religion, Happiness, Distress and Fear Levels After the First Corona Outbreak in the Netherlands

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Abstract

Religion is one of the constants in our society and its power and influence is still strong. The aim of this study is to analyze if religion can alleviate fear and distress levels and improve happiness levels in respondents after the first Corona outbreak in the Netherlands. The method used to undertake this was by analyzing data from one of the largest longitudinal panels in the Netherlands composed of thousands of respondents. Results showed that religious individuals tend to be slightly happier than non-religious ones and also that members of certain denominations have higher happiness levels and lower fear levels than members of smaller denominations. So it appears that religion might act as a buffer in times of crisis for certain individuals.

Key words: religion, corona crisis, happiness, fear, distress
J.E.L. classification: M310

1. Introduction

When the Corona crisis hit Europe and the world, everybody was in shock and panic levels were very high. Churches started closing down and the media seemed to do more harm than good by sowing panic and distress. Could religion alleviate the fear caused by the Corona outbreak? That is the main question of this paper. Even though religion has been around for thousands of years, the many ways it impacts the individual is still unknown. That is one of the important contributions of this paper, to add to the under researched area of religion and consumer behaviour by analyzing the relationship between religious affiliation, religious denomination and fear, distress and happiness levels. This undertaking has been put together by using data from one of the largest longitudinal panels in Europe and just after the first Corona outbreak started.

2. Theoretical background

Religion "may fill the human need for finding meaning sparing us from existential angst" according to (Azar, 2010). Religion has been around for more than 100.000 years and it's power and influence is not going away any time soon. Some scientists (Barber, 2012) portrayed that religion will lose its appeal and people who are religiously unaffiliated will be more numerous than those who are religious. But the reality and also the projections paint a different picture. Worldwide, 84% of people identify with a religious group (*The Global Religious Landscape*, 2012) and the numbers are on the rise. It is estimated that 30 years from now, around the year 2050, the number of individuals unaffiliated with a religious group will drop from 16% in 2010 to 13% in 2050 (Lipka & Posts, 2015). Also, the composition of religious groups is very volatile, with almost 28% of Americans leaving the faith in which they were raised for another religious group or no religion at all (*Religious Landscape Study*, 2015). So it appears that we live and will still live in a world that is dominated by religion.

Religion can be defined as a "sense of power beyond the human, apprehended rationally as well as emotionally, appreciated corporately as well as individually, celebrated ritually and symbolically as well as discursively, transmitted as a tradition in conventionalized forms and formulations that offers people an interpretation of experience, a guide to conduct, and an orientation to meaning and purpose in the world." (Oxtoby & Hussain, 2010).

Even though religion is a key component of understanding human behaviour it has been under analyzed in the marketing research literature. Most studies have dealt with the topic of segmentation, which divides the marketplace based on different religious affiliation or religious commitment (E. A. Minton & Kahle, 2013). Some examples would be the avoidance of advertising products that do not comply to jewish or muslim religious laws (Ahmad, K., Rustam, G. A., & Dent, M. M., 2011; Alserhan, 2010; Shafie & Othman, 2006). Other research topics have dealt with the influence of religion regarding media preferences (Kahle & Valette-Florence, 2012), store patronage (Mokhlis, 2006), shopping behaviour (Essoo & Dibb, 2004), ethics (Hunt & Vitell, 2006; Patwardhan et al., 2012) and sustainable consumption (E. Minton, 2013).

But still prominent scholars call the need for further analysis on this very important issue. For example, according to E. A. Minton et al. (2016), the coalescence of religion and consumption behavior is still under researched and poorly understood. Also, according to Mathras et al. (2016), studies on the effects of religion on consumer psychology and behavior are scattered and have yet to be systematized, and much more remains to be discovered and explained. The above mentioned authors have identified how many articles mentioning "religion" were published in peer reviewed marketing journals (Journal of Consumer Psychology, Journal of Consumer Research, Journal of Marketing Research, Journal of Marketing, and Marketing Science) from 1992 to 2014. According to them, only 180 articles were published in 22 years, and just a small part of these had religion as the main research topic.

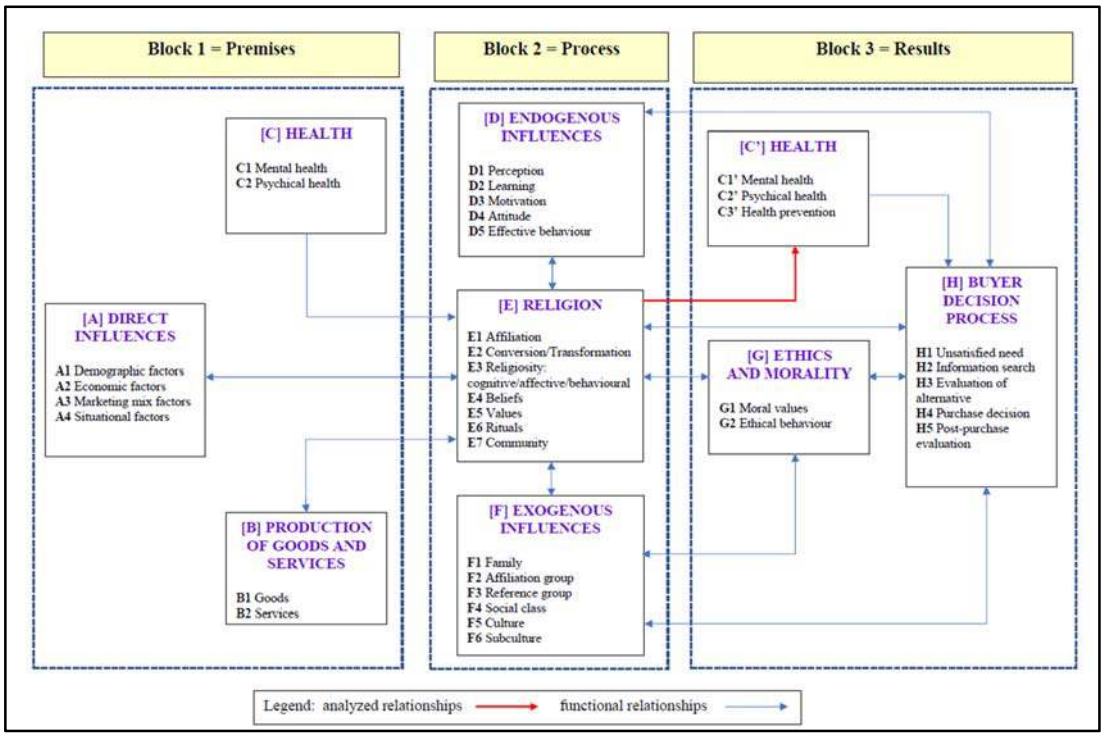
Also it appears that adults tend to come closer to religion in uncertain times and when they feel a lack of control in order to find meaning, according to Whitson & Galinsky, (2008).

The times that we live now with the Corona crisis hitting the whole world can be categories as chaotic to say the least. For example, according to Rodríguez-Rey et al., (2020), in Spain ''about 36% of the participants reported moderate to severe psychological impact, 25% showed mild to severe levels of anxiety, 41% reported depressive symptoms, and 41% felt stressed'' during the first Corona lockdown. This paper portrays the premise that religion can act as a buffer against the negative psychological outcomes of the Corona crisis. So an analysis of the relationship between religion and psychological factors such as fear, distress and happiness in these times of uncertainty can shed more light on the way religion is shaping individuals lives.

3. Research methodology

This paper is using a theoretical cognitive model (Figure no. 1) for analysing the relationship between religion and different aspects of consumer behaviour. The model is segmented into three main blocks, each of which containing different sub-block and variables. The first section of the model is entitled "Premises" and includes Health, Direct Influences and the Production of Goods and Services. The "Process" block contains Endogenous influences, Religion in the center and Exogenous influences. And the "Results" block includes: Health results, Ethics and morality and Buyers decision process. The present conceptual model is encompassing the most relevant theoretical streams that tie religion with other constructs in the cognitive model. For the current paper, the author will analyze the relationship between religious affiliation and three mental health constructs: happiness, distress and fear levels.

Figure no. 1: Cognitive model of religions influence on consumer behaviour



Source: Developed by author

Research questions

In order to analyse the relationships between religion, happiness, distress and fear levels, the following research questions were created:

Rq 1. Is there a difference regarding happiness levels between religious and non-religious individuals?

Rq 2. Is there a difference regarding distress levels between religious and non-religious individuals?

Rq 3. Is there a difference regarding fear levels between religious and non-religious individuals?

Rq 4. Is there a difference regarding happiness levels between individuals from different religious denominations?

Rq 5. Is there a difference regarding distress levels between individuals from different religious denominations?

Rq 6. Is there a difference regarding fear levels between individuals from different religious denominations?

Participants

This paper makes use of data provided by LISS Panel Data Archive, n.d. (Longitudinal Internet Studies for the Social sciences), a panel administered by CentERdata (Tilburg University, The Netherlands). The LISS panel is a representative sample of Dutch individuals who participate in monthly Internet surveys. The panel is based on a true probability sample of households drawn from the population register. Households that could not otherwise participate are provided with a computer and Internet connection. A longitudinal survey is fielded in the panel every year, covering a large variety of domains including work, education, income, housing, time use, political views, values and personality. The author did not have access to any identifying information about the participants as the data were anonymized and de-identified prior to author access.

For this current paper, the twelfth wave (most recent) of the LISS data panel was used. The data was collected from the religion and ethnicity part of the study and also from the personality study. The data for the religious and ethnicity were collected between 05-08-2019 and 24-09-2019 and the

data for the personality studies were collected between 04-05-2020 and 30-06-2020, corresponding with the ending of the first wave of the Corona outbreak in Europe.
The number of respondents was initially 4.417, out of which 1234 declared being a member of a religious group and 3183 were not religiously affiliated.

Measures

Respondents answered questions regarding their religion, which are part of the religion and ethnicity core studies from the LISS panel. Regarding religious affiliation, the respondents were asked if they considered themselves members of a certain religion or church community and those who declared that they are religiously affiliated were also inquired about their affiliation. These were the independent variables of the research. The dependent variables used were happiness, distress and fear levels. The personality questions were: ''On the whole, how happy would you say you are?'' (ten point Likert type scale), ''Indicate to what extent you feel, right now, that is, at the present moment distressed?''(seven point Likert type scale) and ''Indicate to what extent you feel, right now, that is, at the present moment scared?''(seven point Likert type scale).

Procedures

For analysing the relationship between religion, happiness, distress and fear levels SPSS (Statistical Package for Social Sciences) version 19 was used on a Windows computer using Windows 10, 64 bits operating system. Regarding the statistical treatments applied, the author used the multivariate analysis of variance (MANOVA) in order to compare the different religious groups on a number of different, but related, dependent variables.

4. Findings

Table no. 1 presents the main results of the statistical analysis performed.

Table no. 1. Research results

Research question	Results	Details
Rq 1. Is there a difference regarding happiness levels between religious and non-religious individuals?	Yes	A one-way between-groups multivariate analysis of variance was performed to investigate religious affiliation differences in psychological wellbeing. Three dependent variables were used: happiness levels, distress levels and fear levels. The independent variable was affiliation to a religious community. There was a statistically significant difference between religious and non religious respondents on the combined dependent variables, F (3, 4413) = 6.001, p = .000; Wilks' Lambda = .996; partial eta squared = .004. When the results for the dependent variables were considered separately, the only difference to reach statistical significance, using a Bonferroni adjusted alpha level of .017, was happiness levels, F (1, 4370) = 8.698, p = .003, partial eta squared =.02. An inspection of the mean scores indicated that members of a religious community reported slightly higher levels of happiness (M = 7.51, SD = 1.29) than non-members (M = 7.38, SD = 1.41).
Rq 2. Is there a difference regarding distress levels between religious and non-religious individuals?	No	
Rq 3. Is there a difference regarding fear levels between religious and non-religious individuals?	No	

Rq 4. Is there a difference regarding happiness levels between individuals from different religious denominations?	Yes	A one-way between-groups multivariate analysis of variance was performed to investigate religious denomination differences in psychological wellbeing. Three dependent variables were used: happiness levels, distress levels and fear levels. The independent variable was religious denomination. There was a statistically significant difference between different religious denominations on the combined dependent variables, F (39, 3583) = 2.51, p = .000; Wilks' Lambda = .923; partial eta squared = .026. When the results for the dependent variables were considered separately, the only differences to reach statistical significance using a Bonferroni adjusted alpha level of .017, were happiness levels, F (13, 1212) = 2.397, p = .003, partial eta squared = .025. and fear levels, F (13, 1212) = 3.534, p = .000, partial eta squared = .037.
Rq 5. Is there a difference regarding distress levels between individuals from different religious denominations?	No	
Rq 6. Is there a difference regarding fear levels between individuals from different religious denominations?	Yes	

Source: SPSS output

5. Conclusions

This paper has analyzed the relationship between religious affiliation, denomination and happiness, distress and fear levels. The psychological outcomes were measured after the first Corona outbreak in Europe so there were objective reasons for fear and distress. The goal of this research was to explore if religion can be a buffer against the fear and panic caused by the Corona outbreak. As the results show, participants who declared being a member of a religious group were slightly happier than respondents who were not affiliated. Even though the results were statistically significant the difference in means was rather small. Also, when it came to fear and distress level there was not a statistically significant difference between groups. So it appears that religious affiliation did not have a powerful effect on respondents regarding their mental wellbeing.

Diving into specific religious denominations one can observe that different religious groups scored differently on the three psychological measures. When it comes to happiness level, Christian denominations such as Catholics, Protestants, Reformed Christians and Evangelicals had the highest mean values, over 7.5 points out of 10. On the other side, smaller groups such as Eastern Orthodox Christians, Hindus, Jews and Muslims had lower happiness levels with mean values of 6.7 point out of 10. Interestingly, this also coincides with the number of members in each religious group - the bigger the group the higher the levels. Also, another explanation might be that more members of smaller religious groups could be immigrants, so their happiness levels could be influenced by the fear of leaving the Netherlands due to job loss.

The pattern continues also with distress and fear levels, members of the smaller religious groups reported higher fear and distress levels compared to their counterparts from bigger religious groups. So it appears that respondents from smaller religious groups who might not be natives feel a higher level of distress, fear and dissatisfaction. They could be very affected by the Corona crisis, much more than other categories. The results can have implications for consumer behaviour because respondents who feel frightened and distressed can modify their consumption behaviour by spending less, buying cheaper items and saving more in order to protect themselves from a future economic crisis.

Regarding the academic implications of the current paper, by adding to the under researched area of religion, economy and marketing can be considered a worthy contribution. Moreover, by using for analysis data from a representative longitudinal panel offers more validity to the results since the sample used was rather high. As limitations, the current paper did not analyse different cultural settings around the world and could have also used more detailed and refined variables. Also incorporating religiosity, that is the level of religious commitment into studies regarding religion might be a worthy avenue for further research.

6. Acknowledgments

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Can Religiosity Alleviate the Fear Caused by the Coronavirus? An Analysis from the Netherlands

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Abstract

The Corona crisis hit Europe with great force and power, causing deaths, distress and anxiety on the old continent. The goal of this paper was to analyze if religiosity - the level of religious commitment could alleviate the negative psychological outcomes of this crisis. The method used was to analyze data from a large longitudinal panel in the Netherlands that provides highly detailed information about respondents. Analysis showed that individuals with higher levels of religiosity had higher fear and distress levels and lower happiness levels compared to respondents with lower religiosity levels. So it appears that religion could do more harm that good regarding psychological wellbeing but that could be just one side of the coin.

Key words: religiosity, coronavirus, happiness, fear, distress
J.E.L. classification: M310

1. Introduction

What could make us feel better during the Corona crisis? The authorities were uncorrelated, the media sowed panic and distress, the hospitals were overcrowded and churches started closing down. This paper has the objective of analysing if religiosity - a key component of the complex religious construct can alleviate the negative psychological impact of the Corona crisis in the Netherlands. The first part of the paper discusses the different literature streams regarding religion and consumer behaviour concluding that religions influence on consumer behaviour is one of the most under researched topics in the marketing literature. Moving forward, the paper analyzes a topic that is on everyone's lips - the Corona crisis by using data from a large longitudinal panel and exploring the relationship between religiosity, happiness, fear and distress levels.

2. Theoretical background

According to Oxtoby & Hussain (2010), religion can be defined as a ''sense of power beyond the human, apprehended rationally as well as emotionally, appreciated corporately as well as individually, celebrated ritually and symbolically as well as discursively, transmitted as a tradition in conventionalized forms and formulations that offers people an interpretation of experience, a guide to conduct, and an orientation to meaning and purpose in the world.'' Even though religion might appear to have lost its power and influence, still 84% of individuals worldwide identify with a religious group (The Global Religious Landscape, 2012) and the numbers are increasing each year. It is estimated that by 2050, the number of individuals unaffiliated with a religious group will drop from 16% in 2010 to 13% in 2050 (Lipka & Posts, 2015).

One important aspect of the religious construct is religiosity which is "the degree to which a person adheres to his or her religious values, beliefs, and practices, and uses them in daily life" (Worthington et al., 2003). According to McDaniel & Burnett (1990), religiosity has two dimensions: cognitive (intrapersonal) and behavioral (interpersonal). The intrapersonal dimension relates to an individual's belief in their religion while the interpersonal dimension relates to the level of practice of religion by individuals such as weekly church attendance, worship meetings and so on. The research conducted so far has clearly demonstrated the value of the religiosity construct as a

consumer behaviour predictor. It is related to aspects of consumer behaviour such as: lifestyle, retail patronage, shopping behaviour, attitudes towards advertising, purchase intentions of high involvement products and media usage (Delener, 1990a, 1990b, 1994; Delener & Schiffman, 1988; Hirschman, 1981; LaBarbera, 1987; 1990; Mokhlis, 2006).

One could assume that religion is a topic that has been over analyzed by the marketing research literature. But the exact opposite is true since most studies have dealt with the topic of segmentation, that divides the market based on religious affiliation or religious commitment - religiosity (E. A. Minton & Kahle, 2013). Classic examples of religion's influence on consumer behaviour are the avoidance of advertising products that do not comply to jewish, muslim, kosher and halal religious laws (Ahmad, K., Rustam, G. A., & Dent, M. M., 2011; Alserhan, 2010; Shafie & Othman, 2006). Other scholars dealt with the influence of religion on media preferences (Kahle & Valette-Florence, 2012), store patronage (Mokhlis, 2006), shopping behaviour (Essoo & Dibb, 2004), ethics (Hunt & Vitell, 2006; Patwardhan et al., 2012) and sustainable consumption (E. Minton, 2013). Prominent researchers call the need for further analysis on religion's influence on consumer behaviour. E. A. Minton et al. (2016) argue that the relationship between religion and consumption behavior is still severely under researched. Moreover, Mathras et al. (2016), argue that studies on the effects of religion on consumer psychology and behavior are scattered and have yet to be systematized, and much more remains to be analyzed.

In December 2019 strange pneumonia cases appeared in the Wuhan Province in China. After investigation, it swiftly became known to the whole world that a new strain of Coronavirus is affecting the global health. The rapid proliferation of the disease has created a massive economic crisis alongside the health crisis. But the Corona crisis has also another powerful impact on the individual and on society, the psychological one. Rossi et al. (2020) discovered a high rate of negative mental health outcomes three weeks into the first Covid 19 lockdown in Italy. These include: post traumatic stress disorder, depression, anxiety, insomnia, high perceived stress and adjustment disorder. Salari et al. (2020) conducted a meta analysis into the scientific articles that researched mental outcomes from the Corona crisis. They discovered the prevalence of stress, anxiety and depression. Taking all this into consideration, the current research has the goal of analysing if religion can alleviate some of the negative psychological outcomes caused by the Corona crisis.

3. Research methodology

Research questions

In order to analyse the relationships between religiosity, happiness, distress and fear levels, the following research questions were created:

Rq 1. Is there a difference regarding happiness levels between individuals with different church attendance frequency?

Rq 2. Is there a difference regarding distress levels between individuals with different church attendance frequency?

Rq 3. Is there a difference regarding fear levels between individuals with different church attendance frequency?

Rq 4. Is there a difference regarding happiness levels between individuals with different prayer frequency?

Rq 5. Is there a difference regarding distress levels between individuals with different prayer frequency?

Rq 6. Is there a difference regarding fear levels between individuals with different prayer frequency?

Participants

This paper makes use of data provided by LISS Panel Data Archive (Longitudinal Internet Studies for the Social sciences), a panel administered by CentERdata (Tilburg University, The Netherlands). The LISS panel is a representative sample of Dutch individuals who participate in monthly internet surveys. The panel is based on a true probability sample of households drawn from the population register. Households that could not otherwise participate are provided with a computer and Internet connection. A longitudinal survey is fielded in the panel every year, covering a large variety of domains including work, education, income, housing, time use, political views, values and

personality. The author did not have access to any identifying information about the participants as the data were anonymized and de-identified prior to author access.

For this current paper, the twelfth wave (most recent) of the LISS data panel was used. The data was collected from the religion and ethnicity part of the study and also from the personality studies. The data for the religious and ethnicity were collected between 05-08-2019 and 24-09-2019 and the data for the personality studies were collected between 04-05-2020 and 30-06-2020, corresponding with the first wave of the Corona outbreak in Europe. The number of respondents was 4.426.

Measures

Respondents answered questions pertaining to their religion, which are part of the religion and ethnicity core studies from the LISS panel. Regarding religiosity, the respondents were asked two questions: a. ''Aside from special occasions such as weddings and funerals, how often do you attend religious gatherings nowadays?'' (1 = "every day", 2 = "more than once a week", 3 = "once a week", 4 = "at least once a month", 5 = "once or a few times a year", 6 = "never") and b. ''Aside from when you attend religious gatherings, how often do you pray? '' (1 = "every day", 2 = "more than once a week", 3 = "once a week", 4 = "at least once a month", 5 = "once or a few times a year", 6 = "never"). These were the independent variables of the research. The dependent variables used were happiness, distress and fear levels with the following questions:''On the whole, how happy would you say you are?'' (ten point Likert type scale), ''Indicate to what extent you feel, right now, that is, at the present moment distressed?''(seven point Likert type scale) and ''Indicate to what extent you feel, right now, that is, at the present moment scared?''(seven point Likert type scale).

Procedures

For analysing the relationship between religiosity, happiness, distress and fear levels SPSS (Statistical Package for Social Sciences) version 19 was used on a Windows computer using Windows 10, 64 bits operating system. Regarding the statistical treatments applied, the author used the multivariate analysis of variance (MANOVA) in order to compare the different religious groups on a number of different, but related, dependent variables.

4. Findings

Table no. 1 presents the main results of the statistical analysis performed.

Table no. 1. Research results

Research question	***Results***	***Details***
Rq 1. Is there a difference regarding happiness levels between individuals with different church attendance frequency?	No	A one-way between-groups multivariate analysis of variance was performed to investigate differences in psychological wellbeing between respondents with different church attendance frequency. Three dependent variables were used: happiness levels, distress levels and fear levels. The independent variable was church attendance frequency. There was a statistically significant difference between respondents with different church attendance frequency on the combined dependent variables, F (15, 12196) = 4.991, p = .000; Wilks' Lambda = .983; partial eta squared = .006. When the results for the dependent variables were considered separately, the only difference to reach statistical significance, using a Bonferroni adjusted alpha level of .017, was ''fear levels'', F (5, 4420) = 8.503, p = .000, partial eta squared =.010. An inspection of the mean scores indicated that respondents who frequent church gatherings frequently feel more scared than respondents who attend church less frequently or not at all.
Rq 2. Is there a difference regarding distress levels between individuals with different church attendance frequency?	No	
Rq 3. Is there a difference regarding fear levels between individuals with different church attendance frequency?	Yes	

Rq 4. Is there a difference regarding happiness levels between individuals with different prayer frequency?	Yes	A one-way between-groups multivariate analysis of variance was performed to investigate differences in psychological wellbeing between respondents with different prayer frequency. Three dependent variables were used: happiness levels, distress levels and fear levels. The independent variable was prayer frequency. There was a statistically significant difference between respondents with different prayer frequency on the combined dependent variables, F (15, 12168) = 4.289, p = .000; Wilks' Lambda = .986; partial eta squared = .006. When the results for the dependent variables were considered separately, all the three dependent variables reached statistical significance using a Bonferroni adjusted alpha level of .017.
Rq 5. Is there a difference regarding distress levels between individuals with different prayer frequency?	Yes	
Rq 6. Is there a difference regarding fear levels between individuals with different prayer frequency?	Yes	

Source: SPSS output

5. Conclusions

This paper has analyzed the relationship between religiosity and certain psychological aspects such as happiness, distress and fear levels. The underlying idea was that respondents who are very religious would experience lower levels of distress and fear and higher levels of happiness because religion would act as a protective buffer against negative feelings. When it came to church attendance, surprisingly the only significant difference was obtained regarding distress levels as the results showed that people who attend religious gatherings more frequently experience higher distress levels than respondents who attend religious gatherings less often on not at all. The results are surprising to say the least and are in contrast with other findings that portrayed religiosity as a coping mechanism in periods of uncertainty. Moving on to prayer frequency, another powerful construct of religiosity, we observe similar results. More exactly, people who pray more often experience higher levels of fear and distress compared to respondents who pray less frequently or not at all. Again, the results are in contrast with other findings.

So it appears that religiosity could be increasing people's anxiety and fear levels. But why is that? One answer could be that people who pray and attend church more often put forth in their prayers and church gatherings their feelings and anxieties, thus making them more salient. Thereby they could exhibit higher levels of these feelings. But on the other hand, they could also feel more at peace knowing that their God is in control. Exploring these relationships in more depth could be an avenue for further research. One of the important implications of the current research is that it contributed to the underresarched area of religion and consumer behaviour by analyzing large data sets from one of the largest longitudinal panels in Europe. Even though more variables and more detailed analysis could have been undertaken the results are intriguing and relevant for the current times.

6. Acknowledgments

This paper, the research behind it and the cognitive model used would not have been possible without the exceptional support and guidance of prof. univ. dr. Teodorescu Nicolae (ASE), prof. univ. dr. Anghel Dan-Laurențiu (ASE), prof. univ. dr. Zaharia Răzvan (ASE) and prof. dr. Turcescu Lucian (Concordia University).

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Internal Control in Corporate Governance

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Abstract

Regarding corporate governance internal control is seen as a process at the disposal of management, it is a dynamic process that constantly adapts its devices and techniques to changes in the culture of the organization, adapted to the competence of managers; the goal of internal control is to confirm management expectations by using specific processes, techniques and devices. Managers see technology, data and analytics as a transformative force in business. Therefore, many organizations implement business intelligence and analytical technologies to support reporting and decision-making as well as management control activities, given that, traditionally, management accounting is the main support for decision-making and control in a organization. The management accounting responsibility is to evolve from simply reporting the aggregate historical value to also including the measurement of organizational performance and providing management with the information necessary for decision-making.

Under the present work I will look at the conceptual framework on internal control in corporate governance.

Key words: corporate governance, internal control, internal audit, auditors, organization
J.E.L. classification: G30, M40, M41, M42.

1. Introduction

Also in corporate governance internal control should be a process carried out by staff at all levels of the organization, i.e. be carried out both by top management, but also by line management, by department managers, and by all other employees, so that each member of the entity is responsible for its internal control. The internal control system operates in an ever-changing control environment, which requires adapting control at the level of each activity, differentiated and interactive, built in accordance with the interests of the organization.

2. Literature review

Internal control, together with governance and risk management, is the third major component of corporate governance. (Ghiţă, 2008, p.105)

Thus, in the author's opinion, good corporate governance is dependent, firstly, on risk management, for understanding the problems encountered in the organization and, secondly, for internal control, for achieving its objectives. In this respect, internal auditors, must support the organization in identifying and monitoring the risks it faces, as also to understand and supervise the functionality of the internal control system, which I also believe can be considered as a fundamental element for the implementation of the corporate governance principles. At the same time, it must be accepted that, in view of the improvement of economic relations and the permanent evolution of the market economy, internal control has evolved and evolves continuously through the emergence of other control typologies, as a result of the environment in which it works and in which it is located.

3. Research methodology

In this paper I set out to analyze the conceptual framework on internal control in corporate governance, and as research methods I will use data collection, processing and interpretation.

4. Findings

Internal control, together with governance and risk management, is the third major component of corporate governance. (Ghiță, 2008, p.105)

Thus, in the author's opinion, good corporate governance is dependent, firstly, on risk management, for understanding the problems encountered in the organization and, secondly, for internal control, for achieving its objectives. In this respect, internal auditors, as the organization must support in identifying and monitoring the risks it faces, must also understand and supervise the organization in identifying and monitoring the risks it faces, as also to understand and supervise the functionality of the internal control system, which I also believe can be considered as a fundamental element for the implementation of the corporate governance principles. At the same time, it must be accepted that, in view of the improvement of economic relations and the permanent evolution of the market economy, internal control has evolved and evolves continuously through the emergence of other control typologies, as a result of the environment in which it works and in which it is located.

In close connection with the above, with regard to the corporate governance of information technology, for example, according to the authors Wilkin *et al* (2016), it aims to maximize IT investments in order to achieve business objectives and value. However, as the authors argue, there is little empirical evidence about the attitude and use of organizations, in corporate governance, of information technology to provide such value or the role of related policies, practices, frameworks and methodologies. Following the study conducted, regardless of the organizational dimension, the authors' findings demonstrate substantially the same benefits, influences and challenges; in addition to the widely recognized importance of strategic alignment of business and IT, risk management has proven to be significant both to influence the decision to adopt corporate governance of information technology and to a perceived key capacity for the provision of improved organizational performance and resource-based value.

The increasing integration of IT technology for the processing of commercial transactions and the increasing amount of financially relevant data in organizations, according to author Werner (2017), creates new challenges for auditors, and as a result the availability of digital data opens up new opportunities for innovative audit procedures.

In other words, continuous audit technology has been analyzed in different circumstances, but usually within large entities, which have their own integrated IT systems and internal audit functions. Although several providers of continuous audit technologies have identified implementations in small entities, according to the authors Rikhardsson & Dull (2016), little is known about the application and impact of this technology in this type of organization. The results of the authors' analyzes show that technology is usually established to increase resource efficiency, but is often understood as a tool to clarify data quality issues - rather than a strategically aligned technology. Implementation is not led by an internal audit department, but by either an IT department or a finance department. The use of technology means primarily a verification of transactions because process control applications appear later. According to the authors, the main result involves a change from corrective checks to preventive and detective checks; an increase in the value perception of the finance department; and an increase in data management confidence, respectively. However, as the authors argue, the study also shows possible negative effects of this technology, such as alert adaptation and waste of users' critical thinking.

As the authors Haislip *et al* (2016), mentioned, weaknesses in internal controls related to information technology (IT) are unique threats to organizations. In this context, by investigating whether the relevant internal control entities are using a dissociation strategy with their current auditor, the authors point out that previous evidence of dissociation strategies is valid in both IT and non-IT contexts; particular emphasis being placed on documenting a positive association between entities reporting IT weaknesses and subsequent auditors' revocations or changing. At the

same time, by investigating the potential benefits of internal control of switching to auditors with greater expertise in environments that underline the importance of IT, the authors argue that greater IT expertise of audit entities promotes improved internal controls for their clients, especially those controls that depend on IT. The authors also note that clients who switch to auditors with higher IT expertise than their former auditor are more likely to remedy "material weakness" within one year of reporting control weaknesses, as well as that audit IT expertise is negatively associated with both non-IT "material weaknesses" and information technology in an ex ante reporting framework.

In these circumstances, as Ghiță said (2008, p.105), the internal control system, existing in each entity, must be developed and perfected to that level that allows management to have the best control over the functioning of the entity as a whole, as well as of each activity, in order to achieve the objectives set, thus resulting in a number of characteristics of internal control, those being:

-processuality;
-relativity;
-universality.

a) processuality of internal control

Internal control is a process and not a function; all management functions, including the internal audit function, include control activities that contribute to the evaluation of the management process. So that in corporate governance internal control is seen as a process at the disposal of management, it is a dynamic process that constantly adapts its tools and techniques to changes in the culture of the organization, determined by the degree of competence of managers; the goal of internal control is to confirm management expectations by using specific processes, techniques and tools. In the same way, as Rikhardsson & Yigitbasioglu (2018) said, managers consider technology, data and analysis as a transformative, creative force in business. Therefore, many organizations establish business intelligence and analytical technologies (BI&A) to support reporting and decision-making as well as management control activities, as Peters *et al* (2018), given that, normally, management accounting is the main basis for decision-making and control in an organization.

Thus, as the authors Appelbaum *et al* (2017) the nature of the responsibility of accountants working in management accounting evolves from simply reporting the aggregate historical value to also including measuring the performance of an organization and transmitting to management the information needed to make decisions. Corporate information systems, such as Enterprise Resource Planning (ERP), have provided accountants working in managerial accounting with both the expanded data storage benefit and improved computing benefit and the ability to use comprehensive business analysis to perform performance measurement and provide decision-related information. In relation to the above, I believe that it should be mentioned, as the authors Baader & Krcmar (2018) said, that fraud detection often includes the analysis of large data sets of company resource planning systems in order to identify and locate various irregularities. But, as the authors said, it should also be taken into consideration that data set analysis often leads to a large number of so-called "positive fakes", i.e. entries wrongly identified as fraud.

Returning, the authors Kim *et al* (2017) claim that accountants have formed and developed accounting information systems (AIS) through the organization charts of the system, which have also been used to analyze internal controls. However, when accounting information systems are large, complex and distributed, their system diagrams are more difficult to understand, more difficult to use and are not sufficient to support decision-making in system design and implementation.

Considering the above, according to the authors Richardson *et al* (2018) the chief information officer (CIO) has a particularly important role, namely, is responsible for bridging the gap between two critical areas - technology and business, making the CIO function uniquely different from that of other managers. In this context, as digital technologies become increasingly important to the competitive success of entities, boards and top managers seek to align the purpose of the CIO with the overall objectives of the entity. Thus, according to the authors, entities can use compensation policies to capitalize on the purpose of the CIO to enhance the overall performance of the business.

On the other hand, examining the relationships of the national legal system, the size of the entity and the quality of corporate governance with the help of the Internal Audit Function (IAF) with the implementation of eXtensible Business Reporting Language (XBRL - is a standard software that has been developed to improve the way financial data is communicated, facilitating the compilation and sharing of this data) in public companies, this time, the authors Abdolmhammadi *et al* (2017) have come to the conclusion that the quality of corporate governance is positively associated with the involvement of the internal audit function in the implementation of standard XBRL software.

b) relativity of internal control

As Ghiţă mentions (2008, p.118), an opinion with which I agree, however well planned and executed, internal control can only ensure relative certainty, because an internal control aimed at achieving all the proposed objectives, in conditions of efficiency, and in corporate governance, would be quite costly; therefore, as the author argues, internal control is not designed to guarantee the success of the organization, but its objective is relative and reasonable.

c) universality of internal control

Also in corporate governance internal control is a process carried out by staff at all levels of the organization, it is carried out both by top management, but also by line management, by the compartment managers, and by all other employees, so that as Ghiţă said (2008, p.119) each member of the entity is responsible for its internal control. I am of the same opinion that the internal control system operates in an ever-changing control environment, which requires adapting control at the level of each activity, differentiated and interactive, built in relation to the interests of the organization. But it should be taken into consideration that this structure, which we discussed above, will have to take into account the organizational structure of the entity, the management style of the managers, the influence of environmental factors and implicitly the risks that may affect the organization. Under the same line, I mention that excess norms, rules, procedures can also prevent effective internal control, which is why I also believe that it is necessary to find an optimal balance in order to establish them.

At the same time, as the authors Müller-Stewens *et al* (2020) the diagnosis and interactivity used in/control are indirectly linked to innovation by their influence on the formalization perception of coordination routines. That is, interactive diagnosis and control provides an input, a beginning for an effective coordination process; information provided allowing the coordination of activities towards the correct decision-making. In this respect, in the opinion of the authors the direct effect of controls on innovation depends on the degree of technological turbulence.

Investigating the influence of the training/professionalism of employees from internal control on its quality, the authors Liu *et al* (2017) notes that the training/professionalism At the same time, analyzing the effect of monitoring on this result, the authors note that the effect is more pronounced for entities with strict monitoring environments and for those with greater institutional ownership or attach greater importance to internal control activity. In these circumstances, in the opinion of the authors, the training/professionalism of employees in internal control plays an important role in the design and implementation of internal control systems, and as a result, I also believe that this topic should be of great interest to top managers who want to improve internal corporate control through quality control as well as for regulators who want to understand the mechanisms and monitoring of internal control.

With the intention of measuring corporate integrity, the authors Shu *et al* (2018) examined the connection between corporate integrity and the quality of internal control and the results showed that corporate integrity is significant and negatively associated with weaknesses in internal control. At the same time, the authors identified a substitution effect between informal and formal institutions to increase the quality of internal control. In other words, according to the authors, the negative link between corporate integrity and weaknesses in internal control is more significant when legal development or market competition are weaker. Furthermore, the authors note that more effective corporate governance can strengthen the relationship between corporate integrity and quality of internal control; therefore, what the authors found shows that corporate integrity can increase the quality of internal control.

Also, as the authors Wang *et al* (2018) the internal control system can also be a useful method for protecting the value of an entity from political shocks.

In the study conducted, in another context, the authors López & Rich (2017) argue that there are also positive associations between the disclosure of internal control exceptions and the distance of driving, for example; suggesting that the rigor of the audit is greater for geographically distant clients.

Thus, internal control systems within organizations are made up of all specific arrangements, control activities and routine processes, which, in terms of risk management, ensure the achievement of its objectives. (Ghiţă, 2008, p.242)

In conclusion, it can be said that the implementation of the internal control activity, without taking into account the uncertainties that exist and the nature of the internal or external risks of the organization, contributes to maintaining the risks to an acceptable level.

5. Conclusions

In corporate governance, the internal control system operates in an ever-changing control environment, which requires adapting control at the level of each activity, differentiated and interactive, made in relation to the interests of the organization. However, the organizational structure of the entity must be taken into account, the management style of the managers, the influence of environmental factors and implicitly the risks that may affect the organization. I also mention that excess rules, rules and procedures can also prevent effective internal control, which is why I believe that it is for us to find an optimal balance in order to establish them.

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Responsibility for Internal Control in Corporate Governance

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Abstract

Within organizations there are risks that are constantly evolving in achieving the scheduled objectives, which means that there may also be a chance of failure of their policies; therefore the internal control activities implemented must be correlated with the risk level established by the organization for each field or activity. Especially in corporate governance managers have become increasingly interested and have become more and more involved in the closer monitoring of the internal control system by assessing the risks they face. A particularly important role in the organization of the internal control system in an organization lies with the internal audit which must assist in maintaining effective controls by assessing their effectiveness and efficiencies and promoting continuous improvement. However, it should also be borne in mind that standardization of the audit process cannot increase the quality of the audit; this can be better observed in the case of external audit.

Considering this under the present article, I will look into certain aspects of internal control responsibility in corporate governance.

Key words: corporate governance, internal control, internal audit, auditors, organization
J.E.L. classification: G30, M40, M41, M42

1. Introduction

The general perspective of control, covering all aspects/fields of an organization, has led to the need to group all control activities in order to form an integrated whole, model or control framework that constitutes the support for the construction of its own internal control systems.

2. Literature review

The implementation of an appropriate internal control system, based on a general control framework, is intended to promote a fair control environment in organizations, and in turn the control environment allows an organization to develop its own control strategy in response to possible risks to achieving the objectives. On the other hand, the absence of a control framework can contribute to the separation of risk assessment work from internal control activities, and the internal auditor's efforts will be less valuable and will not be directed to an integrated picture that reflects all the risks of the organization. Ghiţă (2008, p.126)

3. Research methodology

In this paper I set out to analyze certain aspects related to the responsibility of internal control in corporate governance. The research methods used will be data collection, processing and interpretation. I will also use bibliographic selection, as a research technique, and respectively reading, collecting and synthesizing data, as a research process.

4. Findings

In corporate governance, there are risks within organizations that are constantly evolving in achieving the scheduled objectives, which means that there may also be a chance of failure of their policies; therefore the internal control activities implemented must be correlated with the risk level established by the organization for each field or activity. (Ghiță, 2008, p.120)

Quoting Pickett regarding the role of the internal control system in an organization, Ghiţă (2008, p.122) states that the Turnbull Report recommends:

- paragraph 10 – a company's internal control system plays a key role in the management of significant risks in achieving that company's objectives; a well-developed internal control system helps to protect the investments of shareholders and company assets;
- paragraph 11 – internal control [...] facilitates the effectiveness and efficiency of operations, assists in the reliability of internal and external reporting and assists in compliance with relevant laws and regulations.

Chen *et al* (2020), in another context, where internal controls are intended for risk management, this time investigating the way internal controls shape cash holding policies, have concluded that entities with a higher quality of internal control (ICQ) are less likely to have abnormal cash holdings, either excess cash or cash in deficit, and this effect, as the authors argue, is not determined by the quality of corporate governance, but instead in corporate governance, according to the authors, internal control helps entities to develop reasonable cash policies leading to the creation of value.

Within some entities, regarding the way that financial difficulty influences the choice of revenue management methods and how the quality of internal control moderates the relationship between them Li *et al* (2020) notes that entities in financial difficulty tend to pay close attention to the management of commitment revenues to the detriment of real income management but, on the other hand, internal control exerts a moderating effect on the relationship between financial difficulty and the management of earnings, by limiting both the management of commitment income and actual income. Also on the quality of income, as Ji *et al* (2020), argues, in a limited geographical context, in public entities, for example, careful, detailed self-assessments are carried out when a voluntary internal control report is issued, especially for the first time, and consequently, as the authors claim, there is an improvement in the quality of revenue.

At the same time investigating the relation between voluntary reporting of internal control weaknesses and the quality of earnings, the authors Ji *et al* (2017) shows that the quality of revenue, as measured by absolute adjustments/cumulations/discretionary commitments, is significantly associated with voluntary reporting of internal control weaknesses. In addition, according to the authors, both accounting and non-accounting internal control weaknesses affect the quality of revenue when the verification of non-accounting internal control weaknesses is essential for the management of entity's risks.

On the other hand, the authors Jakoby *et al* (2018) considers that the reduction in investments could be a potential explanation of why entities with voluntary reporting of internal control weaknesses are relatively less than entities that do not have voluntary reporting of internal control weaknesses. In the authors' view, a possible explanation for the reduction of investments is the higher costs of financial discrepancies associated with voluntary reporting of internal control weaknesses. Taking into consideration this explanation, the authors point out that entities that voluntarily report internal control weaknesses with credit ratings do not reduce their investments as much and perform much better than entities that voluntarily report internal control weaknesses but are without credit ratings.

Regarding the reporting of internal control authors Wang *et al* (2019) considers that, during the mandatory period of internal control reporting, when a voluntary internal control report is issued, it assumes a significantly lower debt cost than if a non-voluntary internal control report is issued, which can be explained by the superior quality of internal control if a voluntary internal control report is issued. According to the authors, the difference in the cost of debt is more pronounced when entities operate in industries at high risk of litigation and intense competition and when the information environment of the entities is weaker or, I add, in corporate governance, when the parent/group leader has a high demand for information related to the activity.

On the other hand, in a study conducted, the authors Chang *et al* (2020) have proposed, on the one hand, defining critical risk factors that influence the governance of an entity's internal control in an IoT (Internet of Things), (IoT - environment is a concept that involves using the Internet to connect different devices, services and automated systems with each other, thus forming a network of objects) and, on the other hand, to classified risk factors and study their importance in such an environment. Thus, following the research carried out, the authors finally concluded that in order to highlight how the risk factors of internal control of an entity involve various stakeholders, the critical risk factors being classified for mapping with different perceptions, in the new generation of IoT governance practices, the associated factors can be considered as essential elements of measurement for entities in carrying out an internal control and a more effective audit.

With regard to the structure of the internal control system, Ghiţă (2008, p.123) mentions that an internal control system comprises the policies, procedures, tasks, conduct and other aspects of the company, which considered together:

- facilitates the effectiveness and efficiency of its operations by enabling an appropriate response to business, operational, financial, compliance and other risks that may prevent the achievement of the organisation's objectives. These systems include protecting property from improper use or preventing or defrauding them and ensuring that any debts are correctly identified and managed;
- takes part in ensuring the quality of internal and external reporting. They require the maintenance of adequate records and processes that generate a reliable, relevant and timely flow of information from within and outside the organisation respectively.
- take part in ensuring compliance with relevant laws and regulations and also with internal policies relating to business conduct.

At the same time, as Ghiţă (2008, p.124) also mentions, I am of the opinion that a particularly important role in structuring the internal control system in an organization is the responsibility of the internal audit which must assist in maintaining effective controls by assessing their effectiveness and efficiency and by promoting continuous improvement.

Also Chang *et al* (2019) argue that in an entity the Internal Audit Function (IAF), this time, helps the entity's management to improve internal controls on operations, reporting and compliance. But, as the authors state, while many studies examine the association between the Internal Audit Function (IAF) and Internal Control Financial Reporting (ICFR), however, in their view, little is known about internal control over operations and compliance. Thus, by examining the association between the quality of the Internal Audit Function (IAF) and the deficiencies of internal control in operations and compliance, the authors concluded that a larger internal audit team can improve the performance of the internal audit for both operations and compliance, while the competence of the internal auditor is positively associated with the effectiveness of internal control over compliance, but not on operations. Finally, the authors concluded that an entity's control over operations and compliance can mutually influence internal control over financial reporting (ICFR) and ultimately the success of that entity in business.

In the same Time, the authors of Mascha *et al* (2018), examining the type of deficiencies in the internal control audit (entity or application level), notes that deficiencies in the internal control audit of both types can increase the risk of significant distortion, so that, in the opinion of the authors, it should be a primary concern for supervisors if audit entities carry out appropriate procedures to identify internal control audit deficiencies at entity and application level, including those involving general controls of information technology. Using text analysis to examine audit deficiencies based on the type of internal control and the size of an entity, the authors also find that significantly more application levels are identified than entity-level control audit deficiencies. Application-level control deficiencies generally involve revenue, inventory and receivables accounts, while entity-level deficiencies often imply a lack of centralized controls or controls on financial reporting at the end of the period.

According to the authors Li *et al* (2018) although internal auditors are increasingly aware of the importance and value of audit analyses, however previous research indicates that the use of audit analyses is below expectations. Thus, using the Technology-Organization-Environment - (TOE) framework to identify and examine organizational factors that influence the use of audit analysis after approval, as well as whether the use of audit analyses improves the performance of the

internal audit process, the authors found that application-level use is influenced by management support, technological competence and standards, while professional aid, technological competence and application-level use determine feature-level usage. Finally, both at the application and feature level, audit analytical uses improve the performance of the internal audit process.

The authors Liu & Huang (2020) argue, in the study conducted on a sample of 266 observations - foreign entities listed in the US, that entities that employ new auditors are more likely to remedy their material internal control deficiencies effectively in the coming year. Furthermore, the authors found that entities during the voluntary approval period are less likely to address internal control issues and that the remediation of internal control material deficiencies significantly improved the quality of their revenues. At the same time, the authors argue that the institutional differences in the country of origin of a foreign entity affect the reporting behavior of internal auditors' internal control as well as the effect of remedying material internal control deficiencies on revenue quality.

But, in my opinion, as the Knechel authors said, *et al* (2020), it should be keep in mind that standardization of the audit process cannot increase the quality of the audit. This can be better observed in the case of external audit, this time, where the authors argue that audit research should pay greater attention, on the one hand, to the different/particular nature of audit missions and the importance of successful cooperation between the service provider (audit entity) and the client, in order to improve the quality of the audit; and, on the other hand, that efforts to maximize the auditor's independence may have unexpected costs affecting the quality of the audit.

At the same time, in the same context, as the authors Bills *et al* (2020), argue, an entity's decision on the choice of the same auditor as the competing, close entity, may reflect a trade-off between exercising caution to protect its own information and tracking the benefits of auditor's knowledge derived from providing services to comparable clients.

Thus, the role of the internal audit on the organization and functioning of the internal control system includes (Ghiță, 2008, p.124):

- assessment of those areas that are most exposed to;
- defining and undertaking programs to verify internal control systems that raise the greatest risks;
- verification of each of these systems by examining and evaluating their associated internal control systems with a view to determining the extent to which the key objectives of the control are met;
- advising management on the implementation of internal control activities and whether they operate adequately and effectively in such a way as to promote the achievement of the objectives of the system/control;
- recommending any improvements necessary to strengthen the control, in a coercive manner, while also clarifying the risks involved in failing to carry out the recommended actions;
- follow up on the implementation of internal auditors' recommendations so as to identify in advance whether management has acted in accordance with audit recommendations;

Given that the control activities that are carried out within the organizations are moving the organization towards achieving its objectives, by respecting the predetermined working procedures, the main concern of the internal audit should also be, in my opinion, the focus on the need to verify internal control systems, obviously in addition to the other internal audit activities.

5. Frameworks under corporate governance

Especially in corporate governance managers have become increasingly interested and have become more and more involved in the closer monitoring of the internal control system by assessing the risks they face. At the same time, even from the perspective of the origin of managers, as Shen *et al* (2020), mention, the empirical results of the authors' studies showing that the rural origin of the CEO (Chief Executive Officer) could significantly improve the quality of an entity's internal control.

Authors Lu & Cao (2018) argue that the individual characteristics of the members of the Management Board, including education, experience, certification, integrity and training, are linked to the quality of internal control and therefore, in the opinion of the authors, the quality of internal control is better, the deficiencies of internal control are reduced and their remediation is most likely

frequently applied to entities where the members of the Board of Directors and the Chairman of the Board of Directors have stronger qualifications; in addition, the property having a moderating impact on the relation between the characteristics of the board and internal control. Thus, as the authors argue, it is absolutely necessary that in any entity and in corporate governance respectively, I add, that management knows that the characteristics of board members can make a difference.

Reviewing various studies, authors Chalmers *et al* (2019) suggests that the quality of internal control may have a significant effect on the decision-making by users of financial information, and with regard to the results of research on the empirical association between property structure, the authors argue that certain characteristics of the board and the quality of internal control are generally mixed; empirical evidence on the association between the characteristics of the audit committee and the quality of internal control generally supports a positive and significant view.

Also, as the authors claim Braumann *et al* (2020), interactive control reinforces the effect of top management's tone on risk awareness, while the tone given by top management and control are not empirically linked to each other in terms of creating risk awareness. So, as the authors argue, I agree with that, especially in corporate governance, the effect of tone from top management and interactive control become significantly stronger in a situation of perceived uncertainty over the environment.

Also the authors Malmi *et al* (2020) argue that cultural values and preferences significantly influence the interdependence of management control practices and suggest that special care should be exercised with regard to the intercultural generalization of complementarity of management control practices.

On the other hand, with regard to the association between the social ties of the board of directors and accounting conservatism, the authors Yin *et al* (2020) notes that there is a negative relation between them, which, in the authors' view, implies that several social connections of the board reduce the monitoring function of the board and encourages the CEO's tendency to adopt less conservative principles for their own personal gain. The authors also claim that they have found that the internal control system has the status of mediator between the cooperation of the CEO - Council and Accounting Conservatism. In the opinion of the authors this implies that the internal control system decided/concluded by the council could be the means by which the CEO achieves less conservative principles.

For this reason, as Ghiță said (2008, p.126), the general perspective of control, which comprises all aspects/domains of an organization, has led to the need to group all control activities in order to form an integrated whole, model or control framework that constitutes the support for the construction of its own internal control systems.

As the author said, the implementation of an appropriate internal control system, based on a general control framework, is intended to promote a fair control environment in organizations, and in turn the control environment allows an organization to develop its own control strategy in response to possible risks to achieving the objectives. On the other hand, the absence of a control framework can contribute to the fragmentation of risk assessment work from internal control activities, and the internal auditor's efforts will be less valuable and will not be directed to an integrated picture that reflects all the risks of the organization. I also believe that it should also be kept in mind that, as Buslepp *et al* (2019), states, the misclassification of audit-related fees/costs correlates with poor quality of internal control in an entity. So is Ji *et al* (2018), examining the association between internal control risk and audit fees under the voluntary adoption regime of the Basic Standard of Internal Control, notes that audit fees are positively linked to internal control weaknesses; in particular, in the opinion of the authors, they are significantly associated with internal control weaknesses related to non-financial reporting, but not to those related to financial reporting. The authors also concluded that voluntary insurance in internal control reports can nevertheless mitigate higher audit fees associated with internal control weaknesses.

Examining the cause of several entities to reveal weaknesses in internal control after having previously reported effective internal control, the authors Chen *et al* (2019) concluded that about half of the variables of the cross-section weaknesses of internal control either do not change significantly from year T-1 to year T or change in a direction that is not expected to cause internal control damage. The authors consider that the reported deterioration of internal control can be attributed to increases in audit duties/fees, turnover, certain ratings, financial difficulties, entity size

and decrease financial activities respectively.

Also related to high levels of audit fees and in the case of external audit, as claimed by the authors Hoffman *et al* (2018), companies with higher IT capabilities incur higher levels of audit fees. In addition, as customer size increases, audit fees from companies with advanced IT capabilities increase at a higher rate than companies without such capabilities.

6. Conclusions

In conclusion, given that the control activities that are carried out within the organizations are moving the organization towards achieving its objectives, by respecting the predetermined working procedures, the main concern of the internal audit should be, and in my opinion, the focus on the need to verify internal control systems, obviously in addition to the other internal audit activities.

It can also be said that the implementation of the control system within an organization and the adequacy of policies to achieve their objectives is the responsibility of the general management, and ensuring management regarding its functionality and monitoring the effectiveness of the system is the responsibility of the internal audit.

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Research on the Impact of Training and Personal Development on Individual and Organizational Performance

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Abstract

Training and personal development (TPD) contribute decisively to increasing the organizational capacity to meet the organization's strategy's objectives while providing employees with the opportunity to take up new jobs that can bring them more satisfaction. Therefore, TPD programs lead to increased organizational efficiency and effectiveness and generate high marginal productivity. TPD programs help workers develop their skills, knowledge, and abilities, which will ultimately help them make a substantial contribution to Increasing labor productivity, organizational performance and increasing profits supported by the development of personal knowledge, skills, and abilities. The challenge to which this article aims to respond was to establish a methodological framework based on the investigation of the relevant literature in TPD and lay the foundations for an empirical study on the impact of TPD on individual and organizational performance.

Key words: training, personal development, individual performance, organizational performance
J.E.L. classification: M53

1. Introduction

To survive in an increasingly globalized economy, organizations focus on increasing employee learning to develop additional skills and competencies (Beardwell and Claydon, 2010). Employee skills and knowledge are a competitive advantage that distinguishes the organization from other organizations. To meet the challenges posed by an increasingly globalized world and the expansion of information and communication technologies, many organizations use TPD programs to build the skills needed for organizational activities among existing employees.

TPD programs are fundamental pillars of the organizational growth strategy, improving productivity, and maximizing corporate profits.

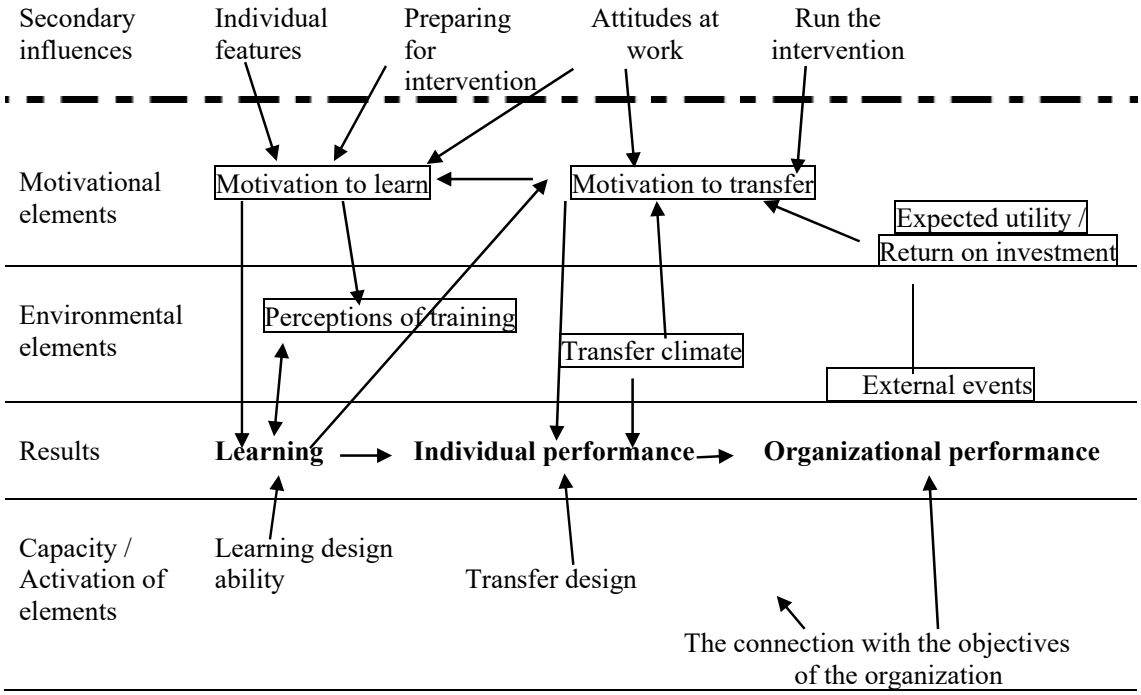
The paper contains five sections. The first section provides an introduction to the research issue and the second section makes a brief theoretical background of the researched issue - the impact of training and personal development on individual and organizational performance. The third section describes the research methodology. The fourth and fifth parts synthesize the conclusions of the research.

2. Theoretical background

Bates et al. (2012) presented a research model, which relates the human resource development process outputs to the defined skills, motivation, and environmental influences, which they conceptualized on three levels: learning, the individual, and the organization. Employee motivation is also determined by a secondary variable that targets the employee's characteristics (Varzaru et al. 2012; Varzaru and Varzaru, 2013, 2015). The model of Bates et al. (2012) illustrates that the output

of TPD programs is learning, contributing to improving individual and organizational performance (Figure 1). Bates et al. (2012) emphasized that improving individual and organizational performance is a fundamental goal of the TPD. (Holton, 1996; Bocean, C. G., 2007; Varzaru, 2015).

Figure no. 1. Research model of human resources development



Source: Adaptation after Holton (1996)

Senge (1999) focused on the need for lifelong learning at the individual and organizational levels. He stressed that organizations that want to survive in a competitive environment would depend on learning. Skills or competencies that lead to qualitative capital growth translate into increased productivity, which, at the individual level, has positive results such as promotion (Sitnikov and Bocean C.G. 2010; Sitnikov et al. 2017). Becker (1993) showed how investing in an individual's education, and training is similar to investing in equipment. He said that ultimately education and training are essential investments in human capital.

3. Research methodology

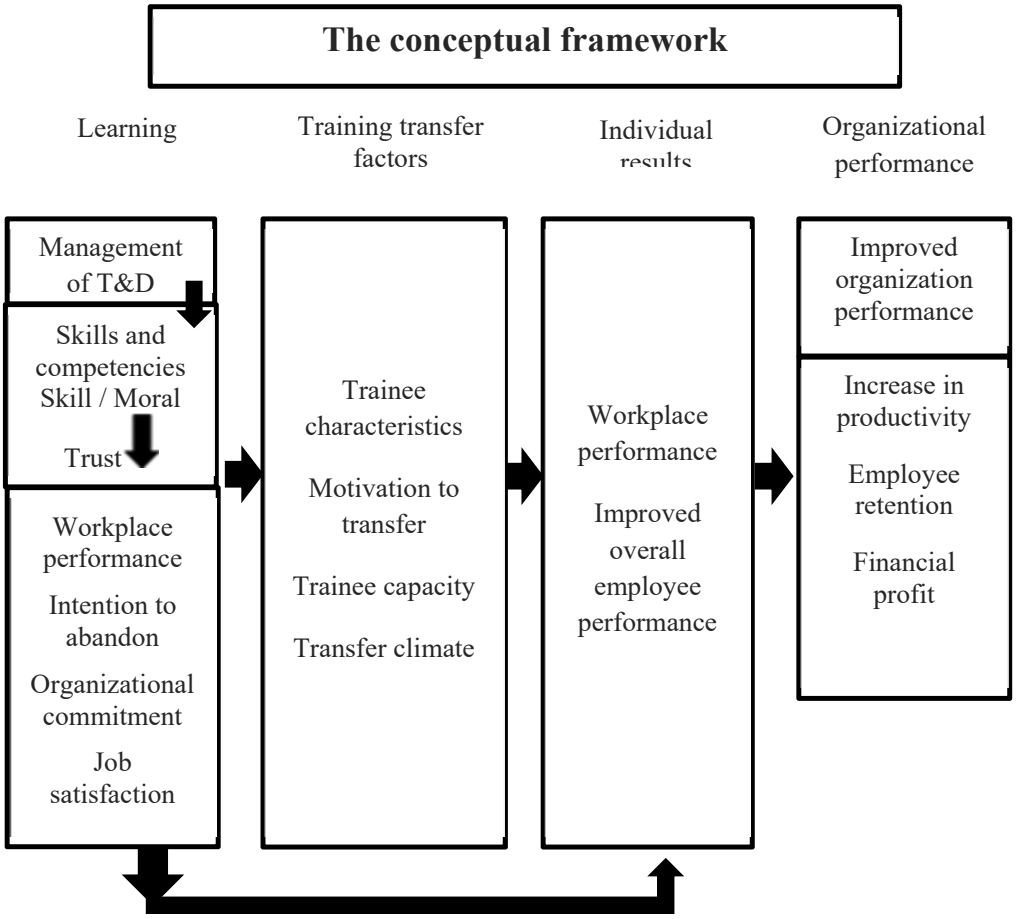
To build the methodological framework of the research of the effects of the professional training and personal development programs, we carried out exploratory research. We used deductive and inductive analysis techniques, synthesis, and generalization of the studied concepts.

The conceptual model is based on Holton's (1996) research model and Holton and Bates's (2008) Learning Transfer System Inventory (LTSI) measurement model, as well as the authors' research results (Figure 2).

This framework is based on the fact that an effective TPD system is the starting point for the efficient and systematic planning and administration of an TPD strategy. The model starts from the hypothesis that TPD can improve employee skills, which generates an improvement in:

- job performance,
- organizational commitment,
- reduced intention to leave
- job satisfaction.

Figure no. 2. The conceptual framework of the research



Source: Adaptation after Holton and Bates, (2008)

4. Findings

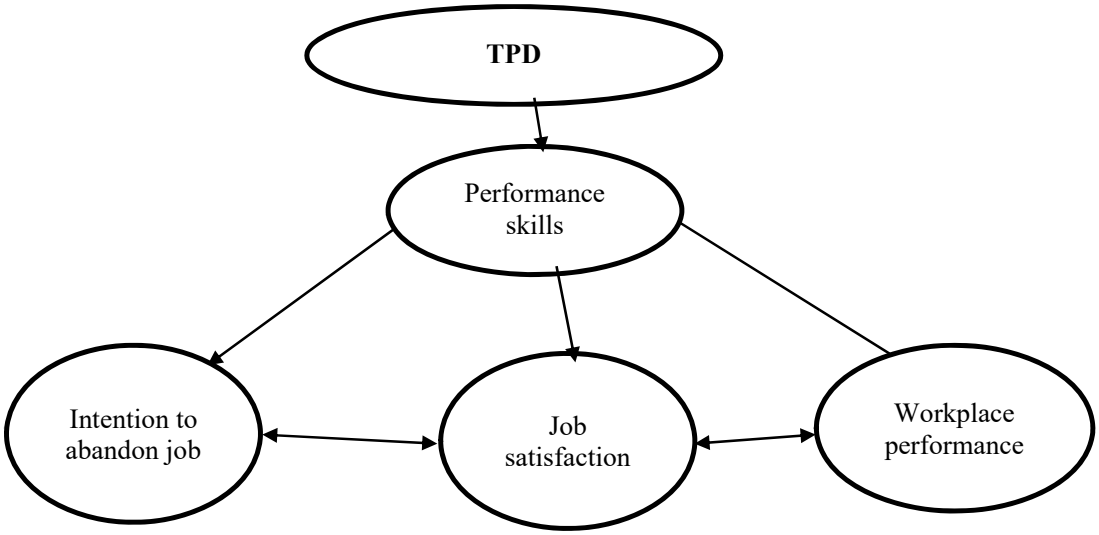
Following the specialized literature research, the set of relationships illustrated in figure 3 presents a positive correlation between TPD and the following variables: skills, competencies, professional performance, professional satisfaction, and a negative correlation of these variables to abandon employees.

A. Workplace performance. In general, a positive relationship between TPD and performance in the workplace can be observed from empirical studies' research. Employee development generates an increase in the level of knowledge and skills fund and creates a synergy effect that allows them to perform specific tasks to improve their performance.

B. Job satisfaction. TPD results in the accumulation of skills and knowledge, leading to increased efficiency and a reduction in working time, which translates into increased self-esteem and morale, and ultimately into increased job satisfaction.

C. Abandonment rate. TPD programs have a beneficial effect on reducing staff dropout rates and encourage a desire to contribute to the organization's overall objectives. Every employee wants to stay in an organization where they will be more competent and remain valuable, efficient and competitive.

Figure no. 3. The conceptual framework for researching the outputs of TPD programs



Source: Developed by author

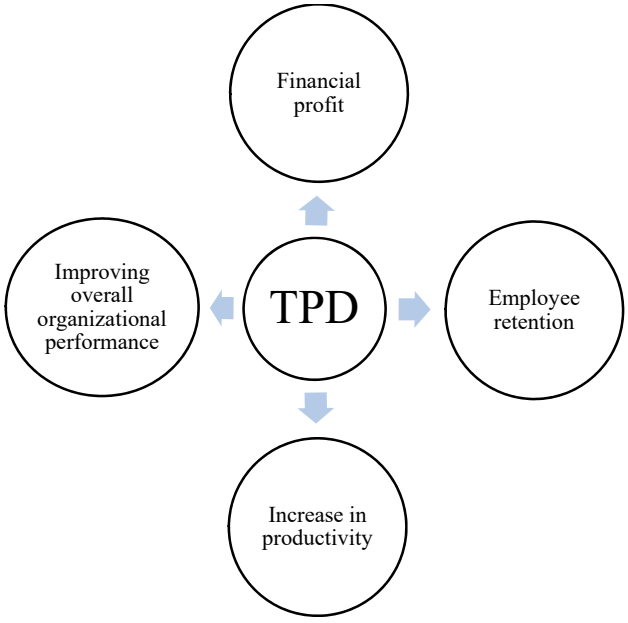
Following the research of the specialized literature, the set of relations at the organizational level illustrated in figure 4 presents a positive correlation between TPD and the following variables: increase of productivity and performance, retention of employees, profitability.

A. Increase in productivity and performance. Employees in a TPD program increase the organization's creativity, and creativity ultimately leads to increased productivity due to increased efficiency and effectiveness.

B. Retention of employees. Employee retention is an essential driver in ensuring the performance of the organization that offers TPD programs.

C. Profitability. Interventions in the field of TPD are the basis of the organization's success and profitability, contributing to organizational objectives. No organization can be profitable until human resources are competent, efficient, effective, and productive.

Figure no. 4. Conceptual framework for assessing the relationship between TPD and organizational performance



Source: Developed by author

However, TPD does not always generate increased profitability or increased profit. According to Blanchard and Thacker (2010), some organizations have failed in TPD processes, gaining little added value due to training systems' inefficiency or their non-adaptation to the organization's culture.

5. Conclusions

A work environment that encourages TPD generates a positive impact on employees' skills, knowledge, and abilities, which positively influences the organization's overall performance. We can say that TPD programs are the basis for improving performance in the workplace. Through this research, we aim to contribute to the stage of knowledge by presenting the essential practices in training and personal development, which were developed following the literature's research.

The link between TPD programs and organizational performance is another somewhat controversial topic of debate. Most organizations, however, tend to view TPD programs as an expense instead of an investment that will generate positive returns. Therefore, an essential investment in TPD programs does not always translate into a proportional improvement in organizational performance due to poor management of TPD programs.

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Challenges in Managing the Risks of Error and Fraud in Public Procurement During the State of Emergency Generated by the Covid-19 Virus

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Abstract

The new coronavirus has generated an unprecedented global crisis, bringing serious challenges to central and local public administration to ensure first and foremost the health of their citizens, as well as the continuity of public services. As part of these efforts, the Covid-19 pandemic has exposed unprecedented challenges in procuring the goods and products needed to fight the virus, while authorities around the world are taking extraordinary steps and entering into fierce competition for their procurement. Against the background of the relaxation of public procurement legislation caused by the extreme emergency situation as well as a wrongly controlled internal control system, corruption has risen rapidly due to the increased discretion of procurement staff in awarding contracts. This approach aims to identify the challenges faced by public institutions during this period, to determine the new crisis influence in the magnitude of error and fraud and, taking into account the perception of the representatives of these entities, to establish possible new directions for action to reduce these negative phenomena.

Key words: management, fraud, public procurement, control, funds
J.E.L. classification: H12, H83

1. Introduction

"Never Let a Good Crisis Go to Waste" - Winston Churchill

We will certainly win the battle against the current pandemic, although it leaves behind enormous losses and suffering. But this crisis forces us to reflect and draw conclusions about what went wrong and, more importantly, what we have to do in the future. The fact that this health crisis took us by surprise and found us unprepared may be understandable, but the lack of reaction, measures and analysis to understand and create the tools to combat or diminish the effects of a similar future crisis, this cannot be accepted. Winston Churchill's words have never better described a situation like the present one, in which he shows us precisely the way forward, namely to use this experience to draw the necessary lessons and capitalize on them for the future.

While the hope of developing a vaccine is closer than ever, the new coronavirus, already in the second wave, is spreading rapidly, still generating fears that it will become a long-term pandemic. In order to respond effectively to future pandemics, governments need to draw the necessary conclusions, analyze which of the measures taken in the fight against the new virus have not had the expected outcome and effectively review their response strategies (Bozzay *et al*, 2020).

2. Literature review

According to the literature, the phenomenon of fraud has been described by two theories, namely that of Cressey (1953) on the fraud triangle and Wolfe and Hermanson's theory (2004) on the diamond of fraud. Although there are still enough debates among theorists about the two approaches, in the following, in order to highlight some aspects of the phenomenon of procurement fraud in public sector organizations, we will use the theory from the perspective of the 4 points of the diamond.

The elements of diamond theory are: pressure, opportunity, rationalization and capacity. The possibility of committing fraud in the public procurement process is caused by a weak system of internal control within the organization.

Although the fraudster will try to justify his fraudulent behavior for various reasons, fraud cannot occur without the author's intellectual capacity (Rustiarini *et al*, 2019). Metaphorically speaking, the opportunity can be represented as the door to fraudulent behavior, while pressure, motivation and rationalization will direct the individual to this door, as long as that individuals are able to recognize the available opportunities so that they can go to the door.

In theory, depending on the particular situation, the pressure can be occupational, economic or social. Occupational pressure can come either from within the organization, from superiors or from outside it, from politicians. Internal pressure spreads from top to bottom, using powerful mechanisms such as obedience to authority (Milgram, 1963). External pressure comes from politicians or business people, who can influence procurement officials to draw up public procurement budgets for actions in their personal interest, to the detriment of the institution or the public interest.

Poor remuneration of public procurement officials can increase the pressure for fraudulent behavior. Thus, officials may consider that their remuneration is not commensurate with the work done, knowingly performing acts that are against the law (Blackburn *et al*, 2011, pp. 405–428), finding themselves in the situation of accepting bribes as a solution when faced with personal financial difficulties.

The last pressure is the social pressure in the environment. In this case, fraudulent behavior is not only about obtaining financial benefits, but also because employees have connections or interests with suppliers, friends, or family ties (Caulfield *et al*, 2014, pp. 38–45). This personal connection can be strong and can influence the actions of public procurement officials. As other motivations, employees want to obtain higher positions, promotion or recognition from third parties with political decision-making power if they are able to meet their requirements to win the tender.

Theoretically, *the opportunity* should be the only one that public organizations can fully control through the organization's internal control system, code of ethics, employee recruitment processes, fraud detection procedures, audit processes and sanctions for the committed fraud.

Higher sanctions can reduce the number of fraudulent actions, although, due to the risks to which they are exposed, legal officials may demand higher bribes (Mahmood, 2005, pp. 62–84). Several conditions affect the system of external liability, such as the existence of a free press, a dynamic and proactive civil society and an independent judiciary system.

Returning to the current context, the situation of maximum urgency generated by the health crisis seems to be the perfect opportunity for committing fraud in public procurement of goods and services necessary to prevent and combat the spread of the Covid-19 virus.

Every individual who commits fraud will experience moral dilemmas. The moral dilemma is a negative feeling perceived by individuals when they have two different cognitions - ideas, beliefs, opinions - (Aronson, 1969). Because the moral dilemma is an unpleasant condition, the individual will try to reduce it by seeking to justify his actions. In other words, the justification is the excuse that the delinquent uses for himself to compensate for the guilt he feels for his deed.

Some reasons that are usually used by the authors to justify their actions and to blur the cognitive dissonance they face would be that other people do the same thing, that they will return the amounts fraudulently appropriated, that they do it for a good cause, that they are not paid as they should and that these amounts are practically deserved or that the organization can buy again. These are the most commonly used excuses with which fraudsters silence their inner voice or arguments they use when they are discovered.

Factors such as the position or function of the individual within the organization, intellectual capacity, immunity to stress/guilt and the perception or self-confidence that fraud will not be detected or, even if detected, the punishment will be insignificant, are decisive in the emergence of fraud phenomena in public procurement (Wolfe *et al*, 2004, p. 38). Thus, the higher the function and level of training of the fraudster, the greater are the chances of being involved in fraud and, of course, more difficult to detect (Dellaportas, 2013, pp. 29-39). According to the Association of Certified Fraud Examiners, 51% of people who commit occupational fraud in public procurement are educated people, at least with a bachelor's degree.

Fraud and error in public procurement during the state of emergency have several **particularities**, as presented below.

While governments around the world are facing the COVID-19 pandemic, the profile market has seen a spectacular increase for medical equipment or protective masks whose wear has become mandatory by law in most countries. This huge imbalance, which appeared instantly between market demand and supply, also encouraged the emergence of fraud, as there were many situations in which unauthorized producers offered non-compliant or properly classified products for sale. Moreover, the intermediaries speculated and bought these products and subsequently resold them to public institutions around the world at an overcharge. But in this blind struggle to ensure at all costs the goods and products needed to combat the new coronavirus, quality and supplier verification has been a major challenge for the officials involved.

The disastrous Covid-19 pandemic has revealed weaknesses in global supply chains and in the ability of national procurement systems to provide essential personal protective equipment, sanitary materials and Covid tests. Several countries have faced and are facing problems such as poor quality of the goods purchased, extremely high prices, scams and the general inability to obtain sources.

Every state, major city and territory and also thousands of hospitals are forced to take part in a bidding war, a context that favors artificially rising prices. Distinct from the political challenges for combating the Covid-19 pandemic were those of the leaders of public institutions on the front lines of the battle, respectively, municipalities and hospitals, who were forced to react quickly in procuring specific products and services.

In their article, Theo Nyreröd and Giancarlo Spagnolo reviewed some examples of suspected fraud reported by the international press (Nyreröd *et al*, 2020):

- In the UK, a clear non-urgent contract has been awarded without competition to a firm owned by two longtime partners of Michael Gove and Dominic Cummings, personal advisers to British Prime Minister Boris Johnson.
- In Slovenia, a gambling mogul without a public record of medical experience appears to have received millions in an emergency contract related to Covid-19.
- In Bosnia, a raspberry farm was apparently awarded a contract to import 100 fans, paying $ 55,000 for each fan, while their price ranged from $ 7,000 to $ 30,000 on the international market during the relevant period.
- In India, a real estate agent in Mumbai with no previous medical experience was given a contract to supply things like oxygen cylinders and medical beds.
- Bolivia's health minister was arrested in May after the country bought 179 fans at overvalued prices while it was later revealed that manufacturers were offering fans at about half the purchase price.
- In Bangladesh, Transparency International has published a study suggesting high corruption during Covid-19, exemplifying either by purchasing products or materials that are not of good quality or at obscenely overvalued prices.

The Covid-19 crisis has exacerbated an already significant problem: according to Transparency International (Rhodes, 2020), up to 25% of total global spending on healthcare is lost due to corruption.

The quality of the materials purchased was another major challenge during the Covid-19 pandemic. This time also there are a lot of examples from the press.

- The Spanish government found that out of 340,000 tests purchased from a Chinese manufacturer, 60,000 did not test accurately for Covid-19, and the Dutch Ministry of Health issued a recall of 600,000 face masks from a Chinese supplier because of poor quality.

- Similar problems were frequently found in the UK where $ 20 million was paid for rapid coronavirus tests that did not work and are currently in unusable storage.
- In Romania, SC Unifarm SA, a national company subordinated to the Ministry of Health, purchased 265 pulmonary ventilators of questionable quality from a Chinese company that was not on the list of the 200 producers approved by the European Commission. These fans are currently unused in Unifarm warehouses. The fans were bought at an overvalued price of $ 48,000 per piece while their price was actually $ 18,000 (Ilie, 2020).

There are, of course, compelling reasons to relax the strict rules of procurement in emergency situations, to allow a rapid response in proportion to the needs of the population. But such a reduction in oversight and ex ante controls must be offset by more extensive ex post controls, which should be widely promoted to discourage officials from abusing discretion.

In this time of crisis, managers faced **specific threats and challenges.**

Previous major crises and measures taken worldwide, such as those caused by H1N1, Ebola or SARS viruses or those caused by natural disasters, such as Katrina Hurricane in the US, have not been able to provide effective solutions to the fight against the current crisis because it is infinitely different from any other previous crisis both in the extent of its geographical spread and in the magnitude of the globalized economic shock, all of which are spreading at the same time.

Although the specific legislation of each state regulates the concept of public procurement in situations of extreme urgency, the global crisis generated by the new coronavirus has created an unprecedented situation for public authorities. Public procurement officials around the world have been forced to procure medical or protective equipment in terms of uncertainty and an extremely volatile market, often facing a lack of supply in the context of their huge global demand.

A worrying aspect was, in addition to competition between countries to provide the materials needed to fight Covid-19, the emergence of a so-called cannibalization phenomenon between public institutions within the same country, in which central public authorities competed with local ones to procure these materials, which resulted in artificial price increase and implicitly the amplification of the risks of fraud with public funds. As shown above, public procurement fraud traditionally occurs in most cases when the seller corrupts the public procurement officer to buy goods or services in exchange for illegal financial benefits. However, the global situation generated by the new coronavirus may represent a change in the traditional way of fraud in public procurement, when the buyer as a public procurement officer could corrupt the sellers in order to provide the necessary medical supplies.

Moreover, in order to secure their domestic needs for medical equipment, materials or products to combat Covid-19, some countries have imposed certain restrictions on their export, further exacerbating the scare on the international market (Bozzay *et al*, 2020).

Neither **Romania** was immune to these phenomena of fraud and error during the state of emergency.

One of the starting points in the analysis of the evolution of error and fraud phenomena in the public procurement process during the state of emergency is the changes in the specific legislative framework during this period.

In response to the uncertainty generated by the threat of the new Coronavirus, the national authorities, through the newly created legislative framework, have imposed a series of measures to prevent and combat the epidemic. Through the two decrees issued by the President of Romania for the establishment and extension of the state of emergency, a series of new attributions were established in charge of some public entities from the central and local administration.

These normative acts established first emergency measures, with direct and immediate applicability, but also first emergency measures with gradual applicability (implementation to be done by military ordinances, emergency ordinances, government decisions and ministerial orders). Consequently, during the state of emergency, several normative acts for the implementation of these decrees were elaborated and approved, being inventoried a number of 39 normative acts of primary level, 12 normative acts of secondary level and 75 normative acts of tertiary level (Romanian Court of Accounts, 2020). Along with the sanitary measures, these new regulations also targeted the use of public funds.

We cannot fail to notice the difficult international context in which public procurement for sanitary materials took place during this period, with a demand that often exceeded the possibilities of a limited supply.

The legal provisions that changed the public procurement framework during this period also had a certain ambiguity. Decree no. 195/2020 stipulates that public entities may directly purchase materials and equipment necessary to combat the epidemic. However, this aspect is normal even in the absence of the pandemic, the provisions of Law no. 98/2016 on public procurement allowing contracting authorities to make direct purchases of products or services up to the level of RON 135,060 without VAT.

In the following Decree no. 240/2020, clarifications are brought to this aspect, in the sense that the contracting authorities can make direct acquisitions by derogation from the legal threshold of RON 135,060 lei. However, it is not mentioned to what extent the direct purchase is allowed.

As shown in the GRECO report on the risks of corruption in the context of the spread of Covid-19, national authorities are adopting legislation to combat Covid-19 to ensure the necessary stocks for the health system. However, although these legal rules in the emergency period may be temporarily effective, they have a negative influence on the public funds control system, as public procurement systems can become vulnerable targets (Mrčela, 2020). As mentioned in that report, one of the principles underlying public procurement that should be given much more emphasis on limiting this phenomenon is transparency.

Exemptions from the normal course of public procurement procedures were also supported by the European Commission. Thus, by communicating on the European Commission's Guidelines for the use of the emergency procurement framework related to the COVID-19 crisis, public procurers were recommended the possibility of substantially reducing deadlines to speed up open or restricted procedures, the application of flexibility mechanisms available in the EU on public procurement in cases of extreme urgency, the application of the negotiated procedure without publication, the application of alternative solutions and the establishment of contacts with the market. However, what has not been taken into account in the adopted national regulations is that, in the case of direct procurement, the European Commission states that a direct award to a pre-selected economic operator should be economic operator should be an exception to the general rule.

In addition to the difficult market context and the ambiguity of the legislative framework, there have also been risks related to the purchase of non-compliant materials and products (influenced mainly by high market demand), risks that have attracted the attention of various international bodies (Interpol, Financial Action Task Force, Financial Crimes Enforcement Network).

Another aspect that needs to be mentioned is the lack of a clear strategy regarding the purchases of various materials and health products needed to combat the pandemic. It is noted that no procedure has been designed for establishing and monitoring the need for such materials and ensuring that this need is staggered so that costs can be kept under control. According to the report made by Romanian Court of Accounts at the request of the Parliament on the management of public resources during the state of emergency, aspects of dysfunction, illegality and irregularity were found in terms of non-fulfillment of the necessary stocks of medical products and acquisition costs, which affect the principles of economy, efficiency and effectiveness in the use of public resources (Romanian Court of Accounts, 2020).

The results of the situation of novelty and uncertainty described above were quantified by the above-mentioned report, finding a series of deficiencies in the way of committing and making public expenditures, materialized in 825 cases of deviations, irregularities and / or errors, which generated additional revenues of RON 647,000, damages to the state of RON 38,377,000 and other accounting irregularities amounting RON 659,070,000.

Regarding public procurement, the main types of irregularities found were related to non-compliance with the principles of equal treatment and non-discrimination, being declared the winners the bids containing disadvantageous clauses, procurement directly over the threshold, purchase of goods at overvalued prices, granting substantial advances, acceptance for payment of higher prices than those initially offered, or of non-compliant equipment, etc.

The effects of these situations of uncertainty and ambiguity have also been known in the activity of criminal investigation bodies, in terms of public procurement being identified two major types of irregularities (National Anticorruption Directorate, 2020):

- breach of the legal provisions for the organization, award, development of contracts for direct procurement of protective equipment;
- the purchase of non-compliant medicinal products, considered dangerous and banned in the EU.

The restriction of the criminal treatment of frauds in the field of public procurement during the state of emergency was generated, according to the opinion of the National Anticorruption Directorate, by derogations from the public procurement procedure established by Law no. 98/2016 provided by the Presidential Decree no. 195/2020, respectively the fact that the contracting authorities can directly purchase materials and equipment necessary to combat the effects of the pandemic but also the limit established by the decision of Romanian Constitutional Court no.405/2016 which prevents the consideration of that act as abuse of office in case of violation of secondary legislation.

The global crisis of Covid-19 manifested itself violently also in Romania, where there were problems in the case of purchases using the SICAP catalog, being found products / services with outdated prices or listed as in stock, although in fact stocks were depleted, which led to difficulties in the search and identification of the necessary products / services. Numerous cases were reported when in the electronic catalog published on the SICAP platform the requested products were listed with stock, subsequently and / or at the beginning of the purchase was refused, on the grounds of lack of stock, unacceptable payment term, price update.

Thus, according to the above mentioned report, the largest variation in prices was in the case of disposable protective masks, the prices at which the purchases were made varying from RON 11.90 on March 30, up to RON 2.85 on May 14, purchases made by consulting the electronic catalog provided by SICAP. These price fluctuations were generated by the lack of basic commodity products on the market, especially during the initial period of the state of emergency.

The effect of this phenomenon was that suppliers of sanitary materials or medical devices had significantly different purchase prices during the state of emergency. For example, at Mureș County Clinical Hospital, the prices charged for the purchase of coveralls from various suppliers fluctuated from 42 lei to 98 lei.

Table no. 1. Evolution of the prices of protection materials at Mureș County Clinical Hospital

Coveralls		**Surgical mask**		**FFP2 mask**	
Data	**Price (RON)**	**Data**	**Price (RON)**	**Data**	**Price (RON)**
03.04.2020	50,00	13.01.2020	0,08	20.03.2020	18,70
09.04.2020	22,30	22.01.2020	0,08	30.03.2020	13,00
13.04.2020	78,11	31.01.2020	0,21	07.04.2020	23,00
14.04.2020	22,30	18.02.2020	1,90	09.04.2020	25,50
		25.02.2020	14,50	13.04.2020	18,70
		26.02.2020	4,25	14.04.2020	37,90
		09.03.2020	4,25	23.04.2020	18,75
		13.04.2020	2,61	07.05.2020	9,32
		25.02.2020	14,50	13.04.2020	18,70
		07.05.2020	1,65		

*Source: (*Romanian Court of Accounts, 2020, 88)

The report also highlighted the fact that the purchase price of the products evolved differently, having maximum levels in different periods of time. The maximum price at which the hospital purchased coveralls was RON 78 lei / coverall on April 13, 3.5 times higher than the purchase price of April 9, so that on April 14 the price will be RON 22.30. The purchase price for surgical masks with elastic was fluctuating, from RON 0.08 / piece to RON 14.25 / piece, which represents an increase of 178.13 times. The evolution of the purchase price for the FFP2 mask is oscillating, the maximum purchase price being registered in mid-April, of RON 37.90.

A similar phenomenon was registered at the health units in Prahova County:

Table no. 2. Evolution of the prices of protection materials in Prahova County

Sanitary unit	Sanitary materials	Price before the state of emergency (RON / piece)	Price during the state of emergency (RON / piece)	Increase
Azuga Orthopedic and Traumatology Hospital	surgical masks	0,12	3,44	2867%
Câmpina Municipal Hospital	surgical masks	0,08	4,57	5713%
Câmpina Municipal Hospital	protective coveralls	71,41	113,5	159%
Câmpina Municipal Hospital	disinfectant	17,85	29,75	167%
Sinaia City Hospital	reinforced surgical gown	6,50	23,50	362%

*Source: (*Romanian Court of Accounts, 2020, 88)

3. Research methodology

In order to identify how public entities perceive the incidence of these phenomena during the state of emergency, the degree to which internal mechanisms are prepared to respond to such challenges, we used selective research by multistage sampling. In this sense, a questionnaire was prepared based on Likert's scale and for data processing and analysis we assigned to the 5 levels of the scale scores from 1 (total disagreement) to 5 (total agreement). The questionnaire was addressed to persons with responsibilities in the public procurement process, regardless of the level of the position held (management / execution) in the territorial administrative units such as communes in the South Muntenia Region.

4. Findings

Regarding the **overall evaluation of the public procurement process**, the results of the questionnaire were as follows:

Table no 3. The results of the questionnaire regarding the general evaluation of the public procurement process

Measured criteria	Score				
	Total dis-agreement	Dis-agreement	Neutral	Agreement	Total agreement
Transparency of public procurement	0%	4%	28%	30%	38%
Urgency and unpredictability as triggers of fraud	19%	14%	26%	23%	17%
Purchase of non-compliant or poorly quality products as a result of the extreme urgency regime	12%	17%	33%	19%	19%
Reducing the risk of public procurement fraud by increasing transparency and publicity	3%	0%	10%	23%	64%
The increase of fraud phenomena due to the relaxation and simplification of public procurement procedures	28%	10%	25%	28%	10%

Source: authors' processing

It is noted that, although the proportion of respondents who state that public procurement is characterized by transparency (68%), the state of urgency and the growing need are triggers of fraud, leading at the same time to the purchase of non-compliant products from the qualitative point of view. Regarding the relaxation and simplification of public procurement procedures, their influence on increasing the magnitude of fraud and error is rather nil, the average score obtained by 2.82 being close to that given to the neutral rating.

Regarding the **procedural aspects at the level of the entities related to public procurement**, the results of the questionnaire were the following:

Table no. 4. Results of the questionnaire regarding the procedural aspects at the level of public procurement entities

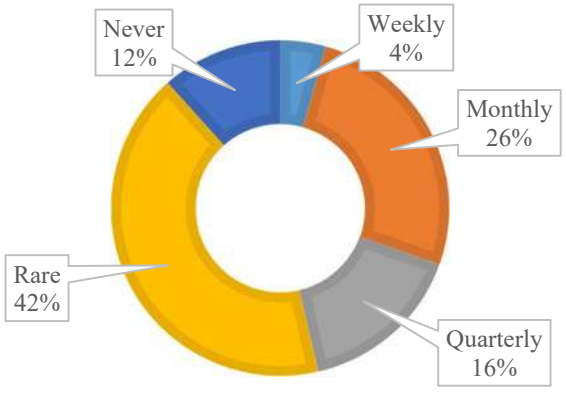
Measured criteria	Score				
	Total dis-agreement	**Dis-agreement**	**Neutral**	**Agreement**	**Total agreement**
Implementation of operational procedures	3%	3%	12%	32%	51%
The degree of coverage of all public procurement activities	1%	4%	17%	33%	43%
The degree of detail of the procedures	1%	7%	19%	30%	42%
Existence of fraud indicators (alert signals) in the operational procedures as well as the mode of action in case of their detection	3%	17%	19%	26%	35%
Existence of a fraud reporting procedure	7%	4%	26%	25%	38%
Design of internal control tools and mechanisms to prevent fraud	3%	4%	25%	30%	38%
Existence of training on fraud phenomena	13%	12%	14%	28%	33%

Source: authors' processing

Regarding the existence and implementation of operational procedures, the degree to which they cover public procurement activities, the existence of fraud indicators (alarm signals) in case of such phenomena, the results of data processing are positive, with average scores between 3.72 and 4.25, close to the agreement score. Similarly, there are data on the existence of a fraud reporting procedure and on the existence of internal control mechanisms to prevent such phenomena.

On the other hand, in terms of training on this phenomenon and increasing the level of awareness of employees, although most employees consider that they are performed at the level of their entities, obtaining an average score of 3.57, when we analyze the frequency with which they are made, these things are completely different, as we can see in the chart below, where the proportion of those who say that the frequency with which anti-fraud training is introduced as items on the agenda of working meetings is rarer than once per quarter or never is 54%!

Figure no. 1. Frequency of anti-fraud training in working sessions



Source: authors' processing

Regarding **the public procurement activities carried out during the emergency period**, the results of the questionnaire were as follows:

Table no. 5. Results of the questionnaire regarding the public procurement activities carried out during the emergency period

Measured criteria	Score				
	Total dis-agreement	**Dis-agreement**	**Neutral**	**Agreement**	**Total agreement**
Accepting offers with overvalued prices due to low market supply	13%	6%	19%	29%	33%
Frequent price increases for personal protective equipment	3%	6%	9%	22%	61%
Non-fulfillment of orders even though the entities would have been willing to accept higher prices than usual	55%	13%	9%	19%	4%
Malfunctions regarding the purchase of products and services necessary for the protection of employees' health	46%	12%	16%	16%	10%
Problems and dysfunctions regarding the acquisition of products and services necessary to fulfill the role and obligation of the institution towards the community (institutionalized persons, disadvantaged persons, etc.)	45%	20%	17%	14%	3%

Source: authors' processing

The analysis of the replies to this section of the questionnaire showed that the low market supply of products needed to prevent and combat the pandemic led to the acceptance of offers with overvalued prices. This was one of the main problems related to public procurement during this period, the other measured factors, namely non-fulfillment of orders, malfunctions in the purchase of specific products and materials for employees and for fulfilling the role that each institution had during this period obtaining average scores between 2.04 and 2.32, close to disagreement.

Regarding **the activities carried out by public entities after the end of the state of emergency**, the results of the questionnaire were as follows:

Table no. 6. Results of the questionnaire regarding the activities carried out after the end of the state of emergency

Measured criteria	Score				
	Total dis-agreement	**Dis-agreement**	**Neutral**	**Agreement**	**Total agreement**
Preparation for the performance of duties in the event of a new state of emergency	4%	3%	12%	35%	46%
Review of internal rules and procedures to identify risks and find solutions and alternatives to address them	14%	14%	25%	25%	22%
Revision of the risk register	14%	17%	23%	19%	26%
Ensuring sufficient stocks of specific products and materials to prevent and combat the pandemic in accordance with legal obligations	9%	14%	17%	29%	30%

Source: authors' processing

The analysis of the data presented above shows that, in the event of a new state of emergency being declared, there is a high degree of confidence that public entities are prepared to carry out their tasks. Despite this confidence, there have been no major changes in the revision of rules and procedures aimed at identifying the risks encountered and finding solutions and alternatives for their treatment, identifying new risks, their impact and the likelihood of occurrence and ensuring of sufficient stocks of specific products and materials to prevent and combat the pandemic in

accordance with legal obligations. The average scores of these analyzed factors are between 3.25 and 3.58, which shows the approach to neutral, indifference.

5. Conclusions

Public procurement has been, is and will remain an area with a high risk of fraud (corruption). The academic research conducted so far is quite limited on the challenges of public managers when faced with the phenomena of fraud during the global pandemics generated by a health crisis.

In order to respond effectively to a crisis of this magnitude, public organizations need to increase public spending and establish a flexible and unambiguous legislative framework but at the same time to limit the opportunities for fraud. In fact, this should be the cornerstone of the response to this crisis. However, proper monitoring of the misuse of public funds remains, more than ever, the main challenge, along with better organization in the early establishment of emergency and disaster reserves.

Difficult decisions are made every day by public managers, public procurement professionals, medical professionals, companies and individuals. The echo of the economic and social effects of this pandemic will be heard for a long time and we will continue to feel effects in all areas of life in the coming years. Although world market practices seem daunting at the moment, as we face these difficult changes, organizations and public managers must look to the future to protect themselves and their employees from fraud. The question is not whether we will see more fraud, it is a question about how big they will be if the response of public entities remains the same.

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Research on the 'Nera Gorge' Touristic Potential Growth

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Abstract

The theme of this article exhibits high interest regarding the knowledge and highlighting of the tourist resources and destinations in Romania, both for the academic and economic environment. By getting familiar with the main tourist regions in Romania, the graduates thus receive a suggestive image on the tourist potential Romania has and the current stage of capitalization. The research was carried out in the main tourist areas in the mountainous region of Banat, mainly the Nera Gorges.

The data were also processed based on surveys and group discussions with accommodation unit managers. Through its offer, tourism appraises the human, natural, cultural and climatic potential, which constitutes the wealth of a territory only if the numerous varied actors, public and private, also contribute to its creation, promotion and development.

Key words: touristic management, analysis, accomodation, mountain tourism
J.E.L. classification: Z32

1. Introduction

Banat is a territory with inherited very old structures, but constantly renewed by the succession of influences and dominations it has endured throughout its history. The identity of Banat is paradoxically conveyed by its ability to assimilate and harmonize values of different origins, in a symphony in which, although the initial nuclei lose firm contours, rarely are they completely "melted" into forming a homogeneous mass. Respect for the specifics of others is a lifelong rule set here, confirmed by the lack of intercultural tensions in a region traditionally characterized by an extraordinary fusion of nationalities, religions, customs, mindsets and internal organization.

All these represent powerful arguments for the purpose of this article, namely the assessment of tourism development over time in Banat, this Romanian territory being successor of a multicultural material and spiritual patrimony of high value not extensively known and included in the national and international tourist circuits. In specialty literature, tourism is described as a solution to all the economic problems a country or region could face, also being responsible for balancing the payments balance as capital investment generator in many fields of activity (Neacsu et al., 2016, p.14). Tourism is a complex phenomenon that also involves social and economic trends and material values circuit between countries, in the process of spending free time.

Tourism geography encompasses the analysis of any particular in terms of spatial distribution and relationships with other particulars, dealing only in spatial terms. Although, this is an important feature of geography in general they do not meet the requirements of researchers in tourism geography. Thus, dynamics examination and facts evolution in time or the analysis of the connections or causal relations within a system cannot be forsaken.

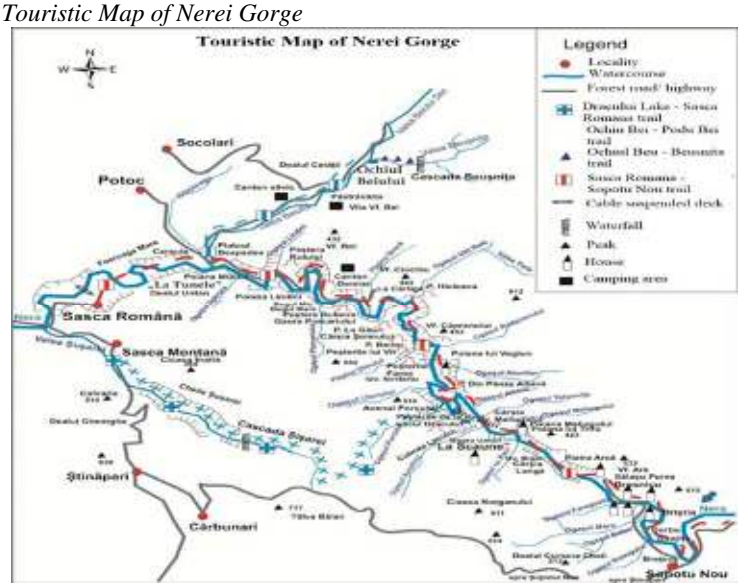
2. Theoretical background. Current and future requirements of Nerei Gorge touristic potential

Although the area of the Nerei Gorges was studied less and later from a tourist point of view and not only, it was explored since the Roman Empire when an access road was built at the western end of the gorges, several small tunnels being dug in limestone. Its construction was initially linked, strictly to the mining operations and to the access to the Danube valley, but now, the tunnels represent the access to the gorges and one of their tourist attraction points. The attractiveness of these gorges is mainly rendered by the multitude of ecotourism activities that can be practiced here.

Nerei Gorge, which is part of the Nerei-Beusnita Gorge Natural Park, is located in the southwestern part of Romania, more precisely in Caras-Severin County and separates two mountain units, the Locva and Anina mountains, crossing a limestone area between Sasca Romana and Sopotu Nou.

The map with the main tourist attractions in the Nerei Gorge area is presented in figure no. 1.

Figure no. 1. Touristic Map of Nerei Gorge



Source: editing after Dobre, G.A., 2016, p.38

Thus, together with Beusnitei Gorges, they form a protected area of national interest located on the administrative territory of Sasca Montana, Sopotu Nou and Carbunari Communes, reservation included in Nerei-Beusnita Gorges National Park, established in 1990. This national park stretches from the Anina Mountains (southern part) to the northern part of the Locva Mountains, with an area of 36,758 acres which includes 6 declared reservations and one proposed to be approved. Nera Gorges are considered the longest gorges in Romania, having roughly 22 km of which 20 km are actually represented by gorges. The tourist potential of the Nera Gorges is significant, the great variety of the natural setting here, the richness of the flora and fauna with many southern elements determined the creation of the Nerei-Beusnita Gorges natural reservation. The gorges themselves, attract through their wildness and beauty and are considered a tourist attraction but also appeal through the natural tourist objectives they boast.

As Victor Tautu states in his monographic work about Sasca Montana "in the Nerei-Beusnita gorge reservation the following activities can be practiced: hiking on marked trails, flora and fauna observing and studying; observation of the karst relief (limestone gorges and walls, rubble, limestone pavements, sinkholes, springs, waterfalls, over 400 caves), rafting, mountaineering, speleology, cycling, zip lining, abseiling, horseback riding "(Tautu, V., 2010, p.276), activities that represent possible sources for the development of mountain tourism in this area.

3. Research methodology

This endeavor used as working methods consulting the bibliography, field trips with the elaboration of photographic materials and Corel modeling of the tourist map. Hence, in this part of the paper we proposed a touristic analysis and on a more specific segment, ecotourism, of the Nerei Gorges and which aims to capitalize on these gorges, capitalization that can be beneficial for the economic development of the area but also for the preservation of a splendid natural environment. The research was also based on: the National Rural Development Programme 2014–2020, the Common Agricultural Policy of the European Union, the Strategy for Sustainable Development in Mountain Regions as well as the current Legislation with the regulations regarding the classification of tourist accommodation structures.

The approached methodology started from an initial stage of identification, selection and evaluation of heritage values as well as other elements of interest for cultural tourism, in the second stage the strategic proposals for cultural tourism development in Banat were elaborated. In accordance with an opinion expressed by a specialist in the field, we consider that one of the trends in the development of mountain agritourism is the return to nature, in a healthy, harmonious environment, consistent with the desire of authentic (Ungureanu, D., 2016. p .133). It manifests itself in all countries where the current post-industrial civilization created the need to escape from the urban, polluted and stressful environment. Especially tourists from countries with advanced economies seek to escape the unleashed atmosphere surrounding their homes and urban agglomerations and find places where nature has remained unharmed by modern civilization.

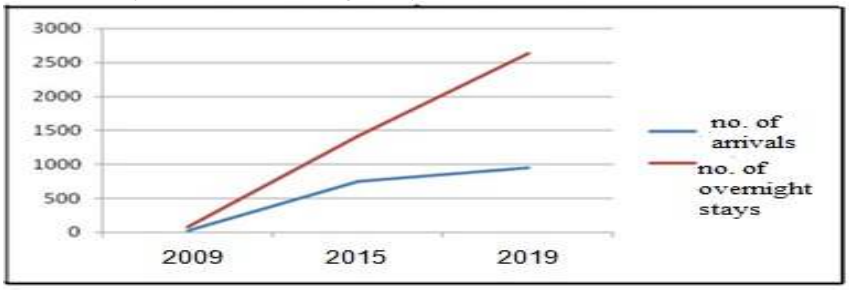
4. Results. Research on capitalizing on the tourist potential of the area

Tourist infrastructure is quite insignificant in the area, in relation to the tourist potential it has, although lately the field of tourism has become more and more expanded and many bed-and-breakfast have been built over a few years. However, the area is still insufficiently exploited from this point of view, and the existing development possibilities are varied. Agritourism is also achieved through the presence of villages as access points, the development of this type of tourism being in full swing, especially in Sasca Montana where the initiative to build many guesthouses was taken and the tourist demand has increased in recent years. As already mentioned, the inhabitants of Sasca Montana commune have been practicing tourism since the 19th century when they went on trips on Nerei Gorges, Susarei and Bei valley, these being sprinkled with chalets and leisure places. Although there are still many ruins and abandoned houses, due to the closure of mines and economic decline, there were people who, attracted by the picturesque area and the multitude of objectives offered, built or bought and rebuilt houses here at higher standards.

Thus, the locality has acquired a neat appearance and at present it looks like a small climatic mountain resort. All these leisure possibilities, together with the tourist potential, give this destination a complex character and, therefore, the possibility to become a successful destination. Transport infrastructure contributes to increasing the access to a region, which is why it is very important for regional and local development. At the same time, this is a decisive factor in maximizing tourist attractions.

As shown in Figure 2, the number of arrivals as well as the number of overnight stays recorded an increasing trend, with the highest peak over the 11 years between 2009 and 2019.

Figure no. 2. Number of arrivals and overnight stays in Sasca Montana between 2009 and 2019

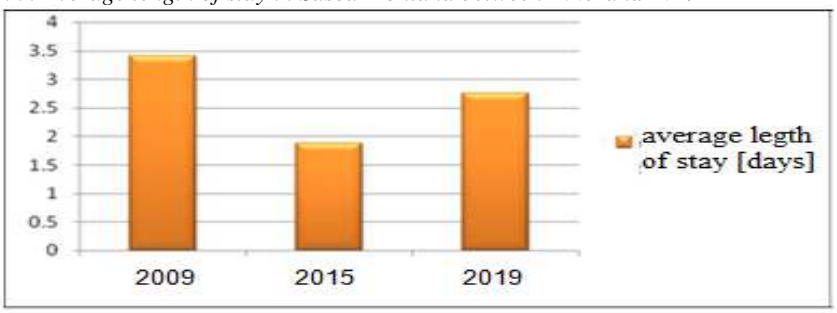


Source: created by the author based on statistical data collected from DJS (County Direction of Statistics)

The accommodation opportunities in the area are not numerous, most of them being located in the commune of Sasca Montana and especially in the village of Sasca Romana. Regarding the touristic traffic in Sasca commune, the course of accommodation demand is still being analyzed. Provided with the official data on the number of arrivals and overnight stays available, we proceeded to calculate the length of stay.

Their ratio yielded an average length of stay which decreases and then increases. According to the data presented in figure 3, in 2009 the average length of stay was about 3.5 days. In 2015 it reached almost 2 days, but in 2019 it returned to the positive trend, this year tourists registering an average stay of about 3 days.

Figure no. 3. Average length of stay in Sasca Montana between 2009 and 2019

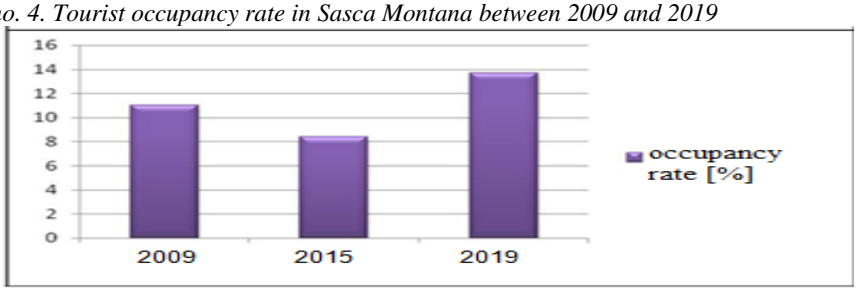


Source: created by the author based on statistical data collected from DJS (County Direction of Statistics)

The same evolution characterizes the occupancy rate, with 11% in 2009, a value that decreases to 8.4% in 2015 and increases to almost 14% in 2019. The evolution of the tourist occupancy rate in Sasca Montana in the analyzed period is presented in figure no. 4.

Therefore, analyzing the official data provided by the INS (National Institute of Statistics), we can note that tourism in the Nerei Gorge region is currently in a underdeveloped state, intensified by the economic crisis. The analyzed tourist region, with the exception of a few areas in Caras-Severin county, in particular, is outlined as a tourist destination to a lesser extent than the counties or neighboring regions (Timisoara county or southern Hunedoara county).

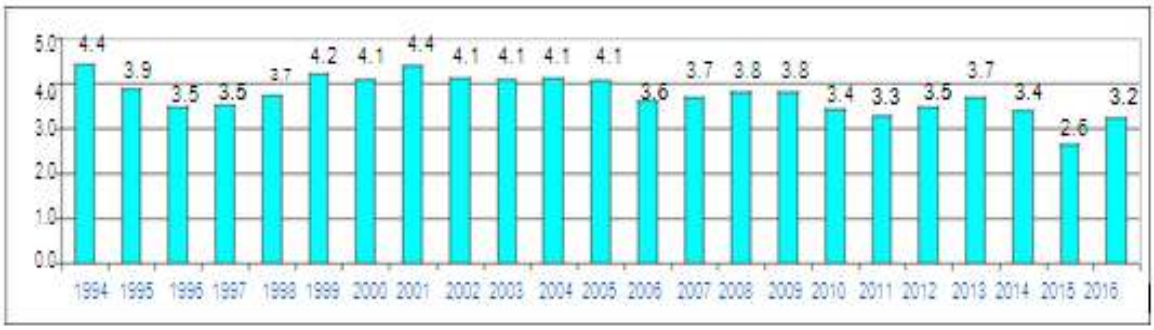
Figure no. 4. Tourist occupancy rate in Sasca Montana between 2009 and 2019



Source: created by the author based on statistical data collected from DJS (County Direction of Statistics)

From the statistical databases we selected only the localities from the rural area, from the Nerei Gorge region. Given the fact that the influence of resorts could lead to obtaining average indicators that could distort the distribution of this activity image in the territory, for certain indicators we will analyze both with and without the influence of resorts. In the graph in figure no. 5 we presented the number of accommodation structures in the scenario lacking the influence of the resorts, for the data related to the period 1994-2016.

Figure no. 5. Evolution of the accomodation structures number - no resorts, thousands of places

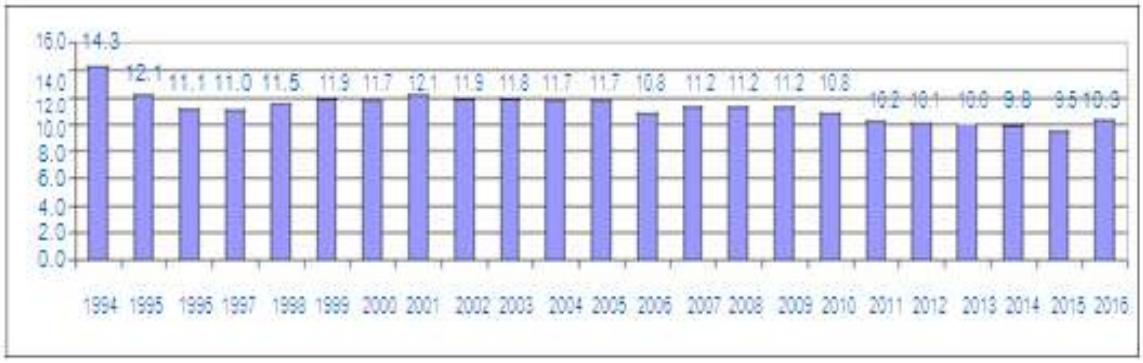


Source: created by the author based on statistical data collected from DJS (County Direction of Statistics)

Comparing the values with and without the influence of resorts, a difference of 50-65% remains almost constant. This shows that a large part of the rural accommodations is concentrated in resorts. As expected, as a result of the 20% decrease in accommodation units in the first two years after 1994, there is also a 22% decrease in the number of accommodation places. It is followed by stagnation until 2009-2010, then a decrease year by year, but of low values, reaching 9483 places in 2015, after which there is an increase of about 9% in 2016 compared to 2015.

Figure no. 6 illustrates the number of places in the rural accommodation structures, in the area of Nerei Gorge, with the influence of resorts.

Figure no. 6. Evolution of the accomodation structures number - with resorts, thousands of places



Source: created by the author based on statistical data collected from DJS (County Direction of Statistics)

As in the case of accommodation structures analysis, with and without resorts, we observe a significant influence from resorts, when the number of accommodation places is about 200% higher than in the statistics without their influence. Since the graph in figure 5 is similar to that in figure 6 (with the influence of the resorts) we infer that the evolution in one direction or the other is influenced equally by the presence of resorts or lack thereof in the analyses performed.

This aspect can be explained by the construction of new accommodation units with a much smaller number of places, such as bed-and breakfast with 6, 8 or 10 accommodation places or agritourism lodges even with 2 or 4 accommodation places. This evolution also occured as a result of the interruption of the activity of some objectives with a large number of accommodation places - certain hotels situated in resorts, certain motels as well as camps. In the rural localities respectively without the resort localities, we can say that during the entire period between 2001 and 2012, no significant changes arose, but for the chages surged from one year to another. Perhaps there was a significant decrease after the crisis in the second half of 2008, by 23% in the analysis with the influence of resorts, while in the scenario without the influence of resorts, by only 14.5%. After this slight decrease, we find a revival every year, the year 2012 bringing an increase of 27% compared to 2009.

Conducting a comparative analysis between the evolution of the number of accommodation structures and the evolution of arrivals, we notice that while the first indicator registers a consistent increase, approximately 90%, for the period 1994-2016, the second indicator registers an almost insignificant increase, 0.87%, for the same period. This comparison suggests that many entrepreneurs considered this activity promising, but the investments made did not lead to an increase in the number of arrivals throughout the region but only to a distribution of tourists on several accommodation structures.

We easily notice the big difference between the value of overnight stays in the whole rural area and their value, carrying out the analysis without resorts. As the difference between these annual average values is about 1070%, we consider that for the analysis of the rural tourism activity we should especially exploit the data from the analysis without the influence of resorts. We say this because overall rural tourism creates a relatively positive image for the entire region, but in fact this economic activity is very intense in resorts as another researcher observed in a similar study for another tourist area of the country (Barbu , I, 2014, p.72).

5. Proposed strategies for developing the tourist potential of Nerei Gorge

Given that these gorges are part of a protected area, being more precisely included in the Nerei-Beusnita Gorge National Park, especially in recent years, several capitalization strategies have been proposed, including the publication of various brochures, leaflets, information panels on marked routes, setting up information centers in the nearby localities, conducting youth education programs such as school camps, workshops and others (Dobre, GA, 2016). These strategies are characteristic especially to the ecotourism specific within these natural areas, which promotes tourism in a conservative, sustainable and educational way. However, tourism within the park is carried out both in an organized and unorganized setting. To develop the tourist activity in this area, first of all, it is necessary to build and implement an infrastructure (both tourist and urban) at a higher quality level that could support it along with the local economy development.

Ecotourism is a fairly recent form of tourism introduced in our country, which is practiced especially in these national or natural parks. The communities involved in the promotion of Nerei Gorge are mainly the localities closest to the gorges; However, Sasca Montana had the highest participation, where several bed-and-breakfast were built, which brought a significant contribution in supporting this practice of promoting the gorges. As a result the number of tourists arriving in this area increased.

The tourist and ecological infrastructure is, however, still insufficiently organized so the diversified creation of ecotourism infrastructure avoiding environmental damage to offer special experiences to visitors is required: gazebos for observing flora and fauna, rehabilitation of water mills, restoration of bridges and stairs, corner forests and dwellings. The rehabilitation of the access roads to the park and inside the park is another goal to achieve for the good tourism development in general and, also, it is necessary to provide a trained specialized staff, by setting up workshops, professional courses to support a sustainable development of ecotourism activity.

At the same time, we can include agritourism as an alternative to promote tourism in the area. This form of tourism largely overlaps ecotourism, having some common features. On the other hand, ecotourism offers real possibilities for the development of tourism in the area, both socially and economically. The community can benefit greatly from this activity and the standard of living would increase substantially in the sense of a consistent and sustainable development, which would favor nature and maintain a simple and fair as possible human-nature relationship. This is exactly what this new segment – ecotourism - wants to achieve by protecting and preserving nature and involving man in activities as non-invasive as possible.

In Romania, the action of factors such as the contribution, importance and place that tourism must occupy in the economic development of the country is not fully acknowledged. Thus, only in 2007, the Master Plan for National Tourism of Romania 2007-2026 stated "the absence of a general policy of directing and orienting the sector", the Government wishing to lay the foundations of a "sustainable approach to tourism development in Romania". The achievement of the Government's stated goal has led the Master Plan to have as its immediate objective the formulation of a general policy framework for the sustainable development and management of the tourism industry in

terms of natural and cultural resources. It is necessary to highlight that the Master Plan anticipates the existence of future benefits for the population, through the tourism development, which can be achieved by enhancing and preserving the cultural heritage.

Few statistical data from the Master Plan demonstrate the serious lag of the tourism development in our country. In this regard, we consider important to be known the structure and contribution the cultural field brought for the tourism development.

6. Conclusions

Through its offer, tourism values the human, natural, cultural and climatic potential that flaunts as wealth of a territory only if the numerous and varied public and private actors also contribute to its creation, promotion and development. As the tourism economy grows at a much faster rate than other economies, this produces issues with negative or positive impact on the environment, on tangible or intangible heritage and on the local population. Major decisions on how to address such issues, as well as forecasts for the future development of the sector should be taken by state authorities only after consultation and in partnership with all concerned or affected groups.

To improve the overall performance, any economic agent in the field of tourism services must react to the evolution of all aspects related to natural resources and be aware of their significance. The research was done in line with this logic and contributed both to the analysis and enrichment of information on development strategies for the tourism potential in the region.

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The Role of Human Resources Management in Corporate Governance

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Abstract

Human Resource Management is part of the process that helps the organization achieve its corporate governance goals. Once the general directions and strategy have been established, the next step is to set firm goals and develop them into action plans. Objectives cannot be achieved without the necessary resources, which include people. Human Resource Management should be part of the process of determining what people are needed, how to use them, how to get them, how to lead them. Human Resource Management is different from other areas of management in that it must serve not only management but must act within the implementation of corporate governance.

The purpose of the research is to analyze the main types of management from the perspective of corporate governance.The main objectives of the article are represented by the correlations between the main types of management practiced and the hierarchical level.

Key words: corporate governance, shareholders, company, managers, decision-making
J.E.L. classification: O16

1. Introduction

Both in economic theory and in practice, the terms *human resources* and *personnel* are more and more common, with the derived phrases *human resources management*, respectively *personnel management*. Often, their use is inappropriate. Despite all the similarities between the two terms, the differences are substantial, and their correct use requires proper clarification. Resuming what has already been shown, we emphasize that by *human resources* we mean the reserve that society has at a reference time and that is available to the economic system to be used in various branches, as being able to carry out a series of activities between As for the term staff, it is synonymous with the term e*mployed* staff or *salaried staff*, ie one who is employed in a service by contract of employment and who, in exchange for his labor force, receives a salary (Nicolescu and Verboncu, 1999).

So, the term personnel has a much more limited scope than that of human resources, referring only to the active population able to work and which is employed in a service, ie the employed population. Given that human resources are the engine of any economic activity, we can say that personnel activities must be central to the activity of an economic entity. Human capital is the one that establishes, leads, executes and communicates them within organizations of any nature (Goss, 2004).

Human resource management consists of all activities aimed at ensuring, developing, motivating and maintaining human resources within an organization to effectively achieve its objectives and meet the needs of employees. Human resource management requires an

interdisciplinary and professional approach to personnel issues within an organization, because it must serve not only the purpose and interests of the organization leader, but must act in the interests of employees, human beings and by extension, in the interest of society. Also, human resources management establishes the system of relationships that appear and manifest within economic entities in any field of activity. From the point of view of traditional management, human resources management is a specialized field, but it can be said that it is one of the basic areas of a business / organization, on the one hand, because it deals with its own staff and, on the other. on the other hand, because there is concern for customers. Thus, the personnel managers must show interest, both for the people inside the economic entity and for those outside, those with whom the entity comes into contact (Cherrington, 2001).

The main purpose of the article is to analyze the main types of management, hierarchical level correspondences, respectively collations between them in order to implement corporate governance.

2. Literature review

To reveal the eloquent as basic characteristics of human resources management, it is necessary to define and shape as accurately place their content in the literature is expressed a variety of views. At the same time, however, most specialists consider that human resource management, like any other scientific field, is the result of a specialized research, of a rapid evolution and diversification that is registered in more and more fields of activity. Thus, depending on the purpose pursued, the research undertaken and the issues addressed, the general management was divided into a multitude of specialized areas, including human resources management (Peretti, 2007).

Human resource management is a young branch of management, first established in the United States, especially during the 1980s, and in 1989 the American Society for Personnel Management changed its name to the Society for Human Resource Management. Then human resource management developed, being practiced in all market economy countries. Everything that is done in an enterprise is the result of the action of the people who make it up. All means of work (machinery, installations, equipment, buildings) and objects of work (raw materials, materials, fuels, energy) are meaningless if people do not put them into operation. Therefore, each functional side of the enterprise is determined by human competence, motivation and organizational action (Cherrington, 2001).

The identification of the necessary labor force, the recruitment and training of the personnel, its management, as well as other particularly complex activities are the main components of the activities that fall in the field of personnel function. They provide the human resources necessary to carry out the activities that contribute to: achieving in the best conditions the objectives of the enterprise; rational use of human resources, continuous development of their professional competence; ensuring appropriate working conditions and protection; staff remuneration (Emilian, 1999).

The main activities in the field of human resources management are considered by most authors be the following (Manolescu, 2000):

- ✓ strategic planning of human resources;
- ✓ ensuring equal employment opportunities;
- ✓ analysis, description and evaluation of positions;
- ✓ the staffing or staff of the enterprise;
- ✓ staff recruitment and selection;
- ✓ professional training and staff development;
- ✓ performance evaluation in the activity carried out;
- ✓ management of incentives and the system of compensations and aids;
- ✓ ensuring the health conditions of the staff and the safety of work;
- ✓ labor relations and corporate communication;
- ✓ relations with trade unions;
- ✓ information systems and staff evaluation.

Strategic resource planning is at a top-level level of management, as the strategic planning process aims to anticipate changes in society and their effects on the enterprise. Human resource management is directly concerned with the managerial problem of ensuring human resources in the enterprise, especially in terms of its planning, supervision and control, and less concerned with solving or mediating the problems of employees (Manolescu, 1998).

The issue of human resources management includes organizational activities aimed at the flow of staff in the unit, the conditions for its maintenance and development (Popescu, 2001):

- ✓ staffing, consisting of job analysis, human resources planning, staff recruitment and selection;
- ✓ maintaining (maintaining) staff: compensation, health and safety, accommodation, labor relations;
- ✓ human resources development, consisting of improvement, performance evaluation, individual and organizational development.

In conclusion, while personnel management pays particular attention to the social side of human resources of an organization, human resources management looks at the side organizational, with its economic and social purpose, ie professional performance.

3. Research methodology

The main objective of the article is to analyze the main types of management, hierarchical level correspondences, and collations between them in order to implement corporate governance. After establishing the objective of which was the basis of scientific research study was designed research plan which included the following steps:

Step 1 - *Establishing the research community*
Step 2 - *Identify the survey unit*
Step 3 - *Elaboration of the questionnaire*
Step 4 - *Determining the sampling method*
Step 5 - *Quantitative exploratory analysis*

The data collection was carried out between November 2019 and May 2020, with the help of the questionnaire, a quantitatively structured research tool. The duration of completing the questionnaire was about 20 minutes.

There are essential differences between general management, human resources management and business management from the perspective of the hierarchical level. They are exemplified in Table no. 1.

Table no. 1 Different types of management and hierarchical level correspondence

Hierarchical correspondence	**Types of management**		
	General management	Human Resources Management	Business management
Strategic leadership	✓ The reason why the institution exists ✓ Vision ✓ Strategic options ✓ Success factors	✓ Compliance with Human Resources policy ✓ Development and change programs ✓ Resources ✓ Key competencies	Business leadership and management techniques
Government leadership	✓ Objectives ✓ Setting performance levels for goals ✓ Indicators ✓ Tracing responsibilities	✓ Recruitment ✓ Knowledge Human Resource Management ✓ Evaluation ✓ Benefits	Process of coordination of human, informational, physical and financial resources in order to achieve the goals of the respective organization
Team leader	✓ Work processes ✓ Work organization ✓ Job Separation Tasks	✓ Coaching ✓ Cooperation ✓ Interplay ✓ Communication ✓ Ability to perform	Process of achieving the objectives: planning, organization, leading (training and motivation) and control

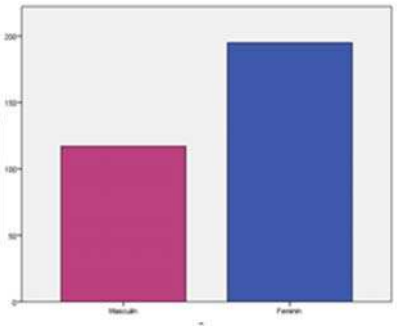
Source: Developed by authors through adaptation and processing after Cherrington, 2001

The sample chosen for the research consists of 312 managers, of which 117 men and 195 women, respectively (Figure no. 1).

Figure no. 1 Structure of the sample

Gen

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Masculin	117	37.5	37.5	37.5
	Feminin	195	62.5	62.5	100.0
	Total	312	100.0	100.0	



Source: processing data obtained through SPSS program

In the processing, processing and analysis of the collected data, the special statistical research software S.P.S.S. (Statistical Package for the Social Sciences), with which we calculated the Spearman rho correlation coefficient.

4. Findings

In order to demonstrate the existence of the variation between hierarchical level and the types of management, the results of the Spearman rho correlation coefficient are presented in Table no. 2.

Table no. 2 Spearman rho correlation coefficient results

Correlations

			General management	*Human Resources Management*	*Business management*
Spearman's rho	*Strategic leadership*	correlation coefficient	.533**	.733**	.861**
		Sig. (2-tailed)		,000	,000
		N	312	312	312
	Government leadership	correlation coefficient	.893**	.593**	.831**
		Sig. (2-tailed)	,000		,000
		N	312	312	312
	Team leader	correlation coefficient	.733**	.881**	.523**
		Sig. (2-tailed)	,000	,000	
		N	312	312	312

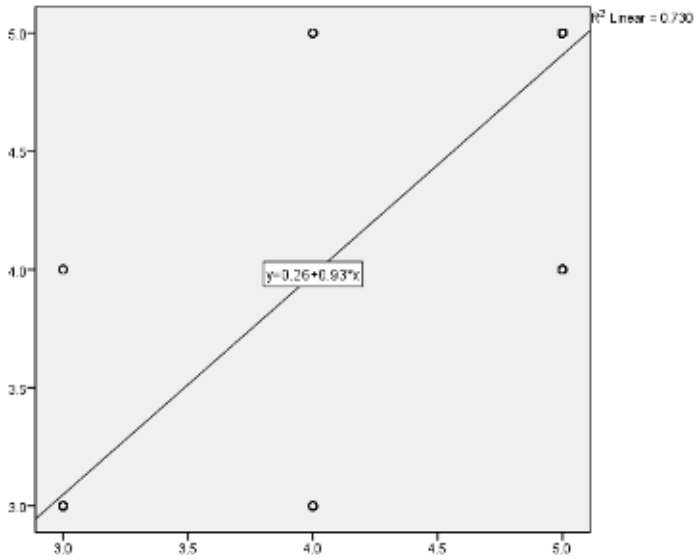
**. Correlation is significant at the 0.01 level (2-tailed).

Source: processing data obtained through SPSS program

Following the analysis of the results of the Spearman rho correlation coefficient, we can highlight the following correlations:

1. There is a very significant positive relationship between ***Strategic Leadership*** and ***Business Management*** (rho = 0.86, df = 310, p <0.001). From the scatter plot it can be seen that the point spread is relatively limited, which indicates a strong correlation (R2 = 0.73). The slope of the scattering of the results is a relatively straight line, indicating a linear rather than a curvilinear relationship (Figure no. 2).

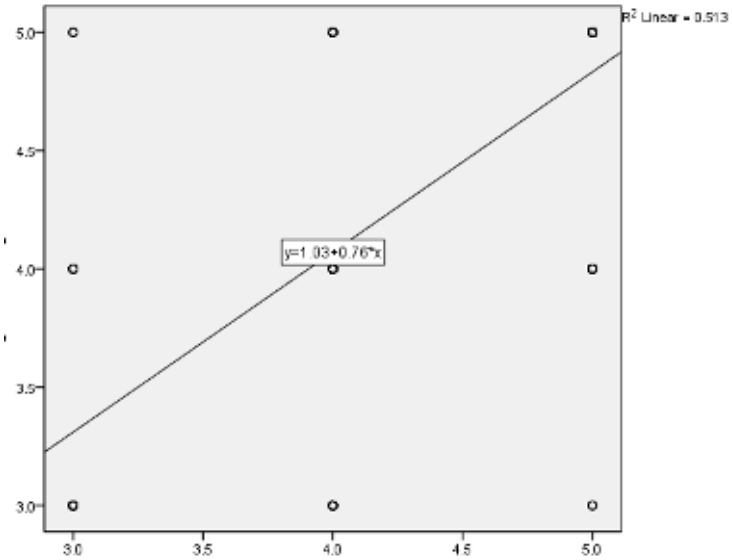
Figure no. 2 Scatter diagram: the correlation between Strategic Leadership and Business Management



Source: processing data obtained through SPSS program

2. From Table no. 1 it can be seen that there is a significant significant positive relationship between ***Government Leadership*** and ***General Management*** (rho = 0.89, df = 310, p <0.001). The scatter plot reveals that the point spread is relatively limited, which indicates a moderate to strong correlation (R2 = 0.51). The slope of the scattering of the results is relatively straight, indicating a linear rather than a curvilinear relationship (Figure no. 3).

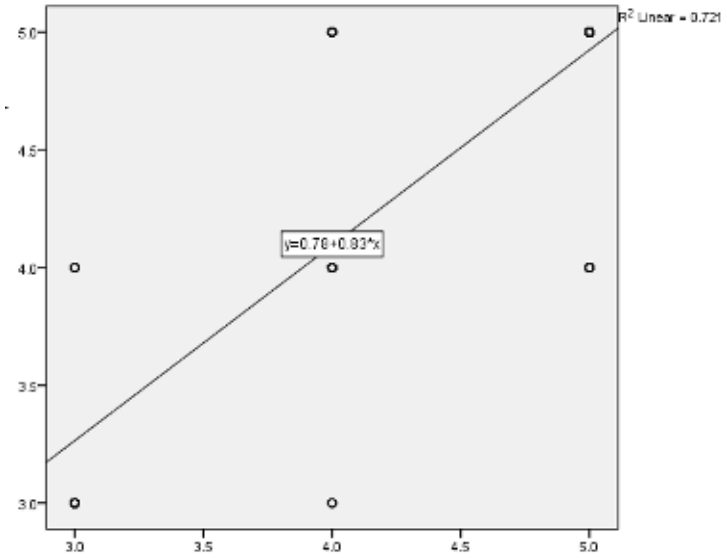
Figure no.3 Dispersion diagram: the correlation between Government Leadership and General Management



Source: processing data obtained through SPSS program

3. There is a very high positive relationship between ***Team Leader*** and ***Human Resources Management*** (rho = 0.88, df = 310, p <0.001). The scatter plot (Figure 3) reveals that the point spread is relatively limited, indicating a strong correlation (R2 = 0.72). The slope of the scattering of the results is a relatively straight line, indicating a linear rather than a curvilinear relationship (Figure no. 4).

Figure no. 4 Scatter diagram: the correlation between Team Leader and Human Resource Management



Source: processing data obtained through SPSS program

5. Conclusions

The development of theory and practice in the field of human resources management requires, first of all, the knowledge and full understanding of the role and particularities of human resources in corporate governance. The role of human resources in the development of corporate governance differs considerably; In large institutions this is a separate function but closely linked to the human resources service. In small institutions it often does not even exist and the training / development activities are carried out ad-hoc.

The human resources department can be responsible for coordinating training requests and possibly organizing corporate governance qualifications. Managers need to identify training needs either by reference to new goals or tasks to be achieved, or based on the results of performance reports. These needs must be prioritized according to the objectives and resources of the activity. Usually, the coordination and control of the training budget is the responsibility of the human resources department. In such a case, the service also deals with the provision and evaluation of training.

Human resource management activities, absolutely necessary for the proper functioning of a corporate governance are:

- *Organization of human resources* - involves, on the one hand, organizational design, which consists in providing the required resources for all necessary activities, grouping them in a way appropriate to cooperation, communication and decision
- *The procurement of human resources* is done on a planning basis, followed by the selection and recruitment processes, so that there is no shortage of staff in any sector, and the positions are filled by those who have the skills and abilities required to do so.
- *Human resource development* involves, on the one hand, managerial development, ie providing learning opportunities for managers in order to increase their ability to work with people, as well as career management, consisting in identifying employee needs, planning and career development.

- *Rewards management* consists in designing fair and flexible remuneration structures, implementing various motivational systems for employee loyalty, introducing non-financial rewards.
- *Performance management* involves monitoring employee performance and evaluating them in accordance with clearly established criteria.
- *Labor relations management* involves creating a positive climate in employee-employer relations and work teams, advising managers.

The role of the human resources department in the field of corporate governance is similar to that assumed in performance management. It consists in providing support and advice for hierarchical management in order to properly apply the procedures related to discipline and dissatisfaction. The procedures must be applied strictly in accordance with the existing law / procedures and recorded precisely at each stage. It is customary for the service to issue and follow written warnings. Records of all disciplinary measures taken must be kept. Procedures can also be included in the training of managers, because fortunately such problems do not occur frequently in most institutions. Mainly, the service has the responsibility to ensure the correctness at each stage, the access of the respective employee to all available support, to the staff representatives and to the protection of the law.

That is why it can be said that the development of human resources management in the structure of corporate governance is of great interest in Western countries, and in Romania it cannot be an exception. The development of human resources through management within the company can also be approached through the control function of the administrator-shareholder relationship and by analyzing the formal bureaucratic structure and the corporate culture. The notion of management can be easily assimilated with the management of a company, which then leads to the establishment of an equivalence between management and administration itself and to a confusion regarding the role of managers and managers.

In conclusion, the main challenges of human resource management regarding corporate governance are:

- ✓ make institutions more accountable, transparent and accessible,
- ✓ establish a performance-based approach,
- ✓ to change the perception of performance,
- ✓ to facilitate relocation and restructuring

Last but not least, the corporate culture and the examination of the cultural processes within the company should not be ignored in order to complete the analysis of the corporate governance structure.

6. Acknowledgment

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Positive Perception in Maritime Safety

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Abstract

In this article are published the results of an international study on safety culture tools in shipping, undergone in 2020. The research objective is to propose a Safety Culture Assessment Fast Tool (SCAFT) used to identify preliminary basic premises of safety culture existence within shipping companies. Research methodology used to identify most appropriate questions for SCAFT consist in a comparative analysis between the introduction of safety culture concept by the International Nuclear Safety Advisory Group (INSAG) from the International Atomic Energy Agency (IAEA) and the later use of safety culture within the particular sector of shipping. SCAFT consists in a number of 4 questions focusing on two distinct perspectives: individuals (seafarers) commitment to the safety culture and effectiveness of communication of their safety concerns, and, respectively, leaders' understanding on the necessity of education and motivation of seafarers and assuming leadership's full responsibility when dealing with safety incidents. The advantage of using SCAFT consist in the simplicity and ease to use and the relevance for any company from the shipping sector. The limitation of the tool is referring to the lack of deep systemic analysis, necessary for a complex assessment for the safety culture, as well as restrictive access to the informational field for observers outside the analyzed entity.

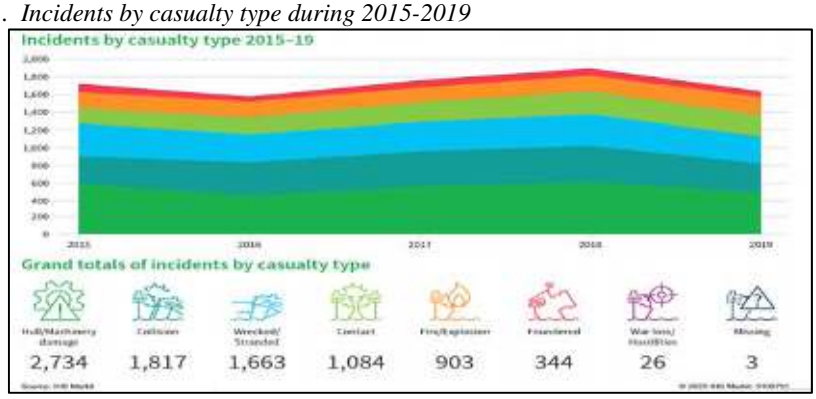
Key words: safety culture, ship, threats, risks, collision
J.E.L. classification: J28, M14, M54, R41

1. Introduction

There is no common definition of the safety culture concept, nor a standard way for assessing the construct (Cole, Stevens-Adams, Wenner, 2013, p.3). However, safety culture represents a key aspect of switching perspectives related to maritime safety, from the 'must to obey' perspective to 'competitive advantage'.

According to a recent 2020 report on state of maritime safety, „the average fatality rate per working hour in shipping is still significantly higher than in land-based industries" and only six types of accidents account for 99% of the fatalities, out of which, the most important are: grounding and collision, fire and explosion, beside hull or machinery damage, contact, founder and less common, war loss or hostilities. These accidents are managed through existing regulations and safety-management systems. However, „major operational accidents occur because of failure of safety barriers rather than unknown threats" (Blake, Nastali and Nadkarni, 2020, 3). The report presents relevant updated statistics regarding to safety incidents, as the ones in Figure 1, emphasizing critical indicators of fatalities with the purpose of making awareness on the importance of safety in Shipping.

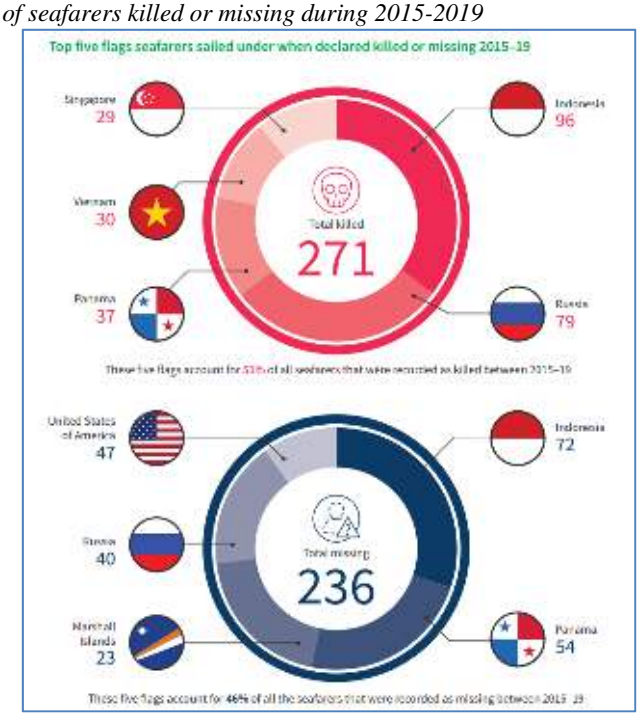
Figure no. 1. Incidents by casualty type during 2015-2019



Source: Blake, Nastali and Nadkarni, 2020, p. 9

Another graphics emphasizing the impact of safety in shipping is shown in the Figure 2 below. We conclude from the figure that safety issues are affecting individuals globally, no matter their nationality.

Figure no. 2. Flags of seafarers killed or missing during 2015-2019



Source: (Blake, Nastali and Nadkarni, 2020, p. 22)

Shipping accidents should be avoided through a risk-based approach to safety. Presence and manifestation of safety culture within the ship and shore dimensions of the shipping company plays a key role in limiting the occurrence of safety incidents.

2. Literature review

The concepts of "safety culture" and "safety climate" are mandatory to be understood in the context of managing a risk-based approach to safety. The "safety culture" concept was first proposed as a term and an explanatory factor in an accident investigation by the International Atomic Energy Agency (IAEA) International Nuclear Safety Advisory Group (INSAG) following the Chernobyl accident that occurred on April 26, 1986 (Hanzu, 2014, p.7). The term was introduced by INSAG in two reports. The first, *INSAG's Summary Report on the Post-Accident*

Review Meeting on the Chernobyl Accident, was published by the IAEA as Safety Series No.75-INSAG-l in 1986. Further the use of the concept was expanded, in *Basic Safety Principles for Nuclear Power Plants, Safety Series No.75-INSAG-3*, issued in 1988. Since the publication of the two reports, the term Safety Culture coined by the INSAG has been increasingly used, not only in connection with nuclear plant safety only, but also in other domains and sectors.

INSAG definition of Safety Culture was: "Safety culture is that assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, nuclear plant safety issues receive the attention warranted by their significance. (INSAG, 1991, p.1) The definition relates to the personal attitudes and the management style found at the basis of the organization's structure, regarding the requirement to consider safety issues in an appropriate manner.

"Safety culture is best viewed as a dynamic, multi-faceted overall system composed of individual, engineered and organizational models" (Cole et al, 2013, p. 3) and represents „long-term attitudes, beliefs and the stable ways in which people behave,", while „safety climate represents a snapshot of the current state of these factors" at any particular time (Flin et al., 2000). Below in Table no. 1. are included several relevant definitions for the „safety climate" concept.

Table no. 1. Definitions of „safety climate" concept

Reference	Definition of Safety Climate
Zohar (1980)	A summary of molar perceptions that employees share about their work environment.
Glennon (1982a, b)	Employees' perceptions of the many characteristics of their organization that have a direct impact upon their behavior to reduce or eliminate danger and, safety climate is a special kind of organizational climate.
Brown and Holmes (1986)	A set of perception of beliefs held by an individual and/or group about a particular entity.
Dedobbeleer and Beland (1991)	Molar perceptions people have of their work setting.
Cooper and Philips (1994)	Safety climate is concerned with the shared perceptions and beliefs that workers hold regarding safety in their work place.
Niskanen (1994)	Safety climate refers to a set of attributes that can be perceived about particular work organizations and which may be induced by the policies and practices that those organizations impose upon their workers and supervisors.
Coyle et al. (1995)	The objective measurement of attitudes and perceptions toward occupational health and safety issues.
Cabrera et al. (1997)	The shared perceptions of organizational members about their work environment and, more precisely, about their organizational safety policies.
Williamson et al. (1997)	Safety climate is a summary concept describing the safety ethic in an organization or workplace which is reflected in employees' beliefs about safety.

Source: (Cole et al, 2013, p.19)

3. Research methodology

In our study we have proposed to develop a Safety Culture Assessment Tool applied in the particular field of shipping. Research methodology consist in using a comparative approach model for the atomic energy fundamental concept of Safety Culture, in the case of identifying essential components of safety culture in shipping. Such components are further used in synthesizing the fundamental principles of the concept necessary for suggesting a minimum assessment tool for the

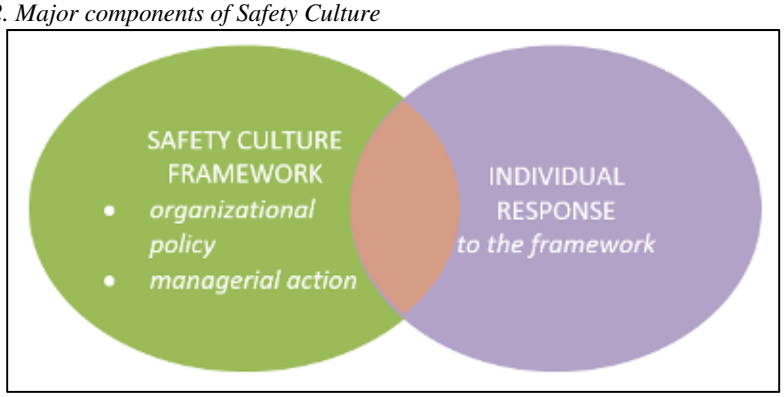
identification of safety culture fundamentals within a shipping institution, on shore or on board.

Concretely, the assessment tool that we proposed to be used in shipping was generated through a synthesis process of the concept suggested by the International Nuclear Safety Advisory Group (INSAG) of experts from the International Atomic Energy Agency (IAEA). In our study, we have applied key concepts from the content of INSAG Report (INSAG, 1991) to the case of shipping and maritime safety.

4. Findings

As suggested by the INSAG, Safety Culture has two major components, as represented in Figure 2. The first component would be the framework with the overall organizing policy which, in the shipping sector, is assimilated to the international regulatory (ISM, SOLAS, MARPOL etc.) as well as to the internal regulatory, comprising several departmental policies and the leadership vision, goals and action. The second component of the Maritime Safety Culture would be the response of the individual (seafarer, crew) committed with responsibility to the company's or the institution's framework.

Figure no. 2. Major components of Safety Culture



Source: Authors' study, adapted from (INSAG, 1991, 2)

In the figure above is suggested the necessity of correlation between the organizational level of the company and the individual response. Such clear correlation, complementary, is needed for proper implementation of the Safety Culture, both on shore and on-board vessel. If there are no clear procedures for building a trustful climate of safety on shore, definitely such situation will be reflected in a lack of safety improvements on board ship. Even if drills and safety procedures are delivered according to the schedule, such exercises and training is expected to be delivered mechanically, with no positive perception of safety and no enjoyment of participation for the exercise improvement.

In order to reach positive perception of the individual for maritime safety, and to generate and stimulate the development of the Safety Culture, as proposed by the INSAG for the atomic energy, but applied in the case of the shipping domain, both the company on shore and the crew must comply with the same level of high responsibility towards safety. In the maritime sector, the implications of Safety Culture definition, as proposed by the INSAG, are briefly detailed in Table 2, below:

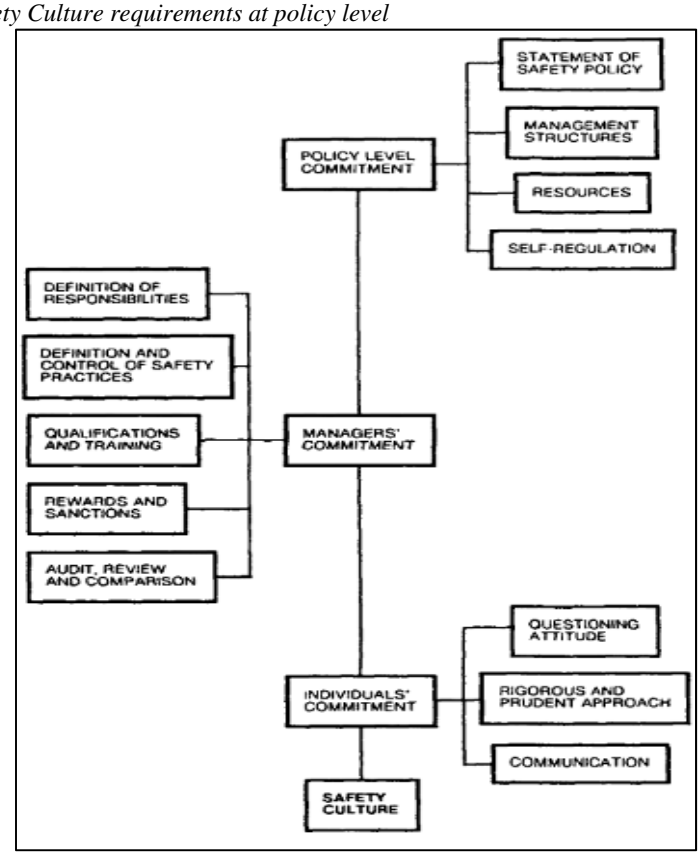
Table no. 2 Implications of Safety Culture INSAG's definition applied to Safety Culture in maritime

Principles emerging from INSAG's definition of Safety Culture	Maritime implications and comments
1. sound procedures and good practices are not fully adequate if merely practiced mechanically	Participatory involvement will enhance the level of awareness during safety procedures and drills
2. all duties important to safety are to be carried out correctly	Procedures, briefings and check lists are to be respected accordingly, allowing continuous improvement
3. all duties important to safety are to be carried with alertness	The main key performance indicator is the action duration (drill timing), but other KPIs can be proposed and assessed, depending the case
4. all duties important to safety are to be carried due thought and full knowledge	Safety regulatory framework must be known and understood by all crew
5. sound judgement	Substance of Safety Culture remains rationale thinking, critical judgement and analytical competences
6. accountability	Drills should be assumed and provided with fully commitment

Source: adapted by authors from (INSAG, 1991, 1-2)

Based on the INSAG universal features of safety culture (INSAG, 1999, p.6) there are the following sets of requirements for establishing a Safety Culture within the shipping company and onboard vessel: requirements at policy level at the onshore company, requirements on managers and response of individuals. At the level of the shipping company, implementation of the safety culture as institutional framework fundamental is represented in Figure 3, below:

Figure no. 3. Safety Culture requirements at policy level



Source: (INSAG, 1991, 6)

The shipping company has to encourage crew (at both executive and operational level) to suggest new safety initiatives. Such participative attitude leads to seafarers enjoying a high level of safety and generating a personal pride in dealing with important tasks in a professional manner, as inspired from the recommendation of ISAG for the individuals, "developing a questioning attitude, a rigorous and prudent approach, and necessary communication" (INSAG, 1999, 14).

In addition, for an effective understanding and implementation of the Safety Culture concept, we have considered in our study a list of guidelines and suggestions for conducting effective security drills, that can also be applied to safety drills, according to a research report delivered in 2013 by Constanta Maritime University for the International Association of Maritime Universities (IAMU), (Arsenie, 2013, 187-188). Suggestions were reviewed and included in Table 3 below.

Table no. 3 Guidelines for organizing safety drills

Nr. crt.	Guidelines for the safety drill	Details of the guideline
1	To be as realistic	• scenario should be the most realistic; • training crew has to be placed in a normal situation for the simulation stress; • A trained person must be aware of the individual's responsibility for the safety of the protected object/persons; • awareness of safety as important part of any crew member.
2	Training should be spontaneous	• is not providing binding participants in the training to know in advance that they will participate in it, but is obligatory always practice to be declared; • is not providing binding workouts are always held at the same time (day or night, in bad hydro weather conditions - fog, heavy rain) or in the same place (on piers, anchoring, underway);
3	Training should be primarily practical:	• 90% practical work; • crew work to practical use of security equipment, the actions in the implementation of safety procedures, etc.; • focus primary on care, as well night and day.
4	Training must be progressive complexity	• build sustainable practical skills starting „from the simple to the complex", „Step by Step"; • skills must meet certain performance standards (e.g., time), but never include running; • increased complexity should be provided through the use of increasingly difficult scenarios for implementation; • Scenarios can be more interesting and instructive when they make typical real life „turns".
5	Training must build capacity for teamwork as:	• building effective teams, ensures adequate response to safety risks; • teamwork significantly increases efficiency and prevents loss of life; • crew members must be prepared for substitution by injury; • teamwork is required in implementing safety procedures;
6	Training should be positive:	• not be used as punishment (or harassment, intimidation or difficult people and their work); • have fun, build a sense of safety • people should feel confident with those who would rely on in case of an emergency

Source: adapted from Arsenie, P., 2013, p.187

Further, we have synthetized the list of questions suggested by the INSAG for the Safety Culture in the energy domain (INSAG, 1999, 13-14, 22-30), and we have selected the most relevant 4 questions that should provide enough details regarding the presence of a safety culture within the shipping business.

We are following propose the following 4-questions Safety Culture Assessment Fast Tool as quick tool necessary to identify the safety culture in the maritime workplace.

The first two questions, applying to seafarers, have the aim to uncover two essential, key aspects motivating the individual to become aware and committed and responsible to the Safety Culture framework. First question will identify seafarers' level of awareness, the understanding of safety procedures role and the level of commitment to such procedures. The second questions have the aim to track and assess the efficiency of the communication flow between seafarer and leader, as well as the aim to identify and make awareness on other for key aspects of Safety Culture: the safety concerns of the individuals.

The last 2 questions from the Safety Culture Assessment Fast Tool (SCAFT) are applying to leaders on shore at the shipping company headquarters, as well as to master, chief engineer, officers, designated Safety officer on board etc. These questions are referring to education and learning necessities as key factors for motivation and awareness of seafarers on the importance of the safety culture in shipping, and, in the last question, the focus is placed on highlighting the need to establish and assume responsibility of the safety outcomes at the highest decisional level.

As described above, the Safety Culture Assessment Fast Tool consist in the following 4 questions:

1. Seafarers believe safety drills and procedures are necessary and important?
2. Seafarers can freely communicate their safety concerns with their manager/leader?
3. Leaders invest in educating and motivating seafarers about safety goals?
4. Leaders take full responsibility when safety incidents occur?

The tool was sent to local shipping companies for pilot testing and is currently in process of validation. The tool is further used in expanding the study on Safety Culture, aiming in identifying ways of enhancing positive perception in maritime safety through participative approach during safety drills.

The advantage of using SCAFT consist in the simplicity and ease to use and the relevance for any company from the shipping sector. The limitation of the tool includes the lack of deep systemic analysis, necessary for a complex assessment for the safety culture, as well as restrictive access to the informational field for observers outside the analyzed entity.

5. Conclusions

In essential domains supporting world societal processed, as energy and transport, safety is a number one aspect that must be taken into consideration for the proper, effective and non-harmful function of the sector. In this paper was presented a Safety Culture Assessment Fast Tool for the shipping sector, with 4 questions, for the purpose of identifying the presence of Safety Culture basic principles within shipping companies onshore and on-board ship. The good functionality and implementation of Safety Culture is possible through the correlation of the regulatory from the organizational level of the company and the individual response. Such correlation should be clear and complementary. If there are no clear procedures for building a trustful climate of safety on shore, the situation will be reflected in a lack of safety improvements on board vessel.

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Positive Motivation of the Employees – One of the Organizations' Extremely Important Aspects

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Abstract

A current and important issue, on which depends the success of the companies, is the problem of effective motivation. The specialized literature it is very generous in approaching the concept of motivation, due to its major role in meeting the organization's objectives. The effects of organizational motivation are and will remain particularly broad, as it targets the most valuable resource of an organization - the staff, with its skills, know-how and energy. The purpose of this paper is to determine an to prove that the positive motivation of employees is a basic condition for the organization's survival and success, being a priority and also an art and a continuous effort.

Key words: motivation, rewards, job satisfaction
J.E.L. classification: M12

1. Introduction

The force which determines the employees to act and on which depends the success of every activity, is the motivation. As a result, it is important that the manager to find and keep a balance between financial and non-financial motivation, to understand that the non-financial motivation tools are not only numerous, but, above all, that they are of a great significance, making the employees feel that they are wanted and valued.

2. Theoretical background

Basically, in terms of motivation, have emerged two categories of approaches, namely motivation in a narrower sense and motivation in a comprehensive sense. Unlike narrower sense motivation, which targets only employees, comprehensive motivation is focused on stakeholders. The latter is based on the idea that in fulfilling the organization's objectives and attaining the targeted performance, it is not involved only the company's staff, but all stakeholders are involved.

Employee's motivation is the process through which the managers determine the employees to work very well, providing some reasons for attain performance. The motivation process should focus on influencing employee behavior in order to be in accordance with the organization's goals. Therefore, from the management's perspective, motivation represents the process through which are offered some opportunities to the employees, so that they shall meet their needs through a productive behavior within the organization (Certo, 2002, p.475). The efforts, persistence and task fulfilment orientation of the employee, are relatively easily observable aspects by the managers, providing indications as how motivated employees are.

The managers can choose from a large number of motivational theories, but knowing the team is the step that must precede the application of any motivational technique. Heterogeneity is what adds value to the team. Thus, the teams are often built together by people who come from different cultural environment, but more often by people having different personalities and different knowledge and skills (Bogan, 2014, p.116) Certainly, the managers' efforts in the direction of motivation will be more effective, as they will know more about the coordinated employees. (McGrath, 2016, p.95).

The essence of motivation "is the trinom rewards/ penalties -results-objectives." (Verboncu, 2018, p.39). It can be boldly stated that employees and teams work better when they have concrete objectives. S.P. Robbins (p.58) regarding this aspect stated that, it is more than edifying: "Concrete objectives produce a superior result to the one obtained in the case of the generalized objective "do your best !".On the other hand, it is important that the personal objectives to be aligned, as much as possible, with the organizational ones, as this alignment will enhance the effort and will bring a superior contribution to the results expected by the organization.

Undoubtedly, motivation it is strongly related to the different needs that individuals have. It can even be said that these are the basis of motivation. Therefore, managers must be sensitive to the needs of each employee and try to meet them as fully as possible. It goes without saying that there is no universally valid recipe to ensure the motivation of all employees, but of great importance is the attempt to find out if the received rewards are the one desired or expected by the employees. Therefore, managers should be concerned with ensuring and providing a kind of compatibility between each employee's needs and rewards.

3. Research methodology

The article's research methodology has an analytical character mainly focused on the research of the specific and specialized literature concerning human resource management and management. The accomplishment of this work involved a bibliographic research consisting of books and articles, taking into account certain references of interest that were accesed and analyzed.

4. Findings

"When we explore the nature of motivation, an important truth emerges: People are always motivated" (Fowler, 2016, p.16). Therefore, the question that arises is not whether employees are motivated, but what motivates them.

There is no doubt that "employees of different generations differ in what they like, what they expect from the organization and management, the perception of the emotional climate." (Cândea, 2019). It is known that cannot be obtained significant and sustainable performance increases in a tense and conflictive climate. In creating a more relaxed organizational climate, based on organizational justice, the managers have a fundamental role.

As for the Y Generation, there is a deep desire to do interesting work, focused on personal development and to continues learning. They do not accept to invest precious time and effort in an activity which do not motivate them (Hobart, 2016, p.39), and also changing their jobs easily. Therefore, providing some interesting jobs, which shall generate personal satisfaction creates a very effective element of motivation.

Talking about motivational process implemented in Romanian enterprises, we can emphasize that the material incentives, such as salaries or bonuses, are more often offered, and. accordingly to Burduș "this is a proof of the individualism that characterizes the Romanian context" (Burduș, 2017, p.535).

It is true that, as the reality shows, money are important, can motivate, but without excluding other factors. Therefore, money should not be considered the only motivational tool. Combining financial with non-financial motivation is a condition of an long-term effective motivation policy. Thus, there are many tools of non-financial motivation. We would like to mention some of them, as follows:

- reward special merits;
- celebrating employees' anniversaries;
- providing a warm, collegial atmosphere and also among employees;
- encourage and endorse respect between employees, establish a promotion system characterized by transparency and to which any employee can access it;
- the possibility of learning new things. (Cotelnic, 2013, p.7).

A motivated and energetic workforce can be retained by providing a creative, friendly, and relaxed working environment in which the employees are not only encouraged to come up with ideas, but are treated as unique individuals. Even more, in such work environments, the employees are eager to come to work, and the investments in such facilities bring important benefits to the companies such as increasing labor productivity, reducing indifference by attracting, retaining and motivating the employees. (Slutu-Bogdan, 2017, p.34).

In the same sense, communication also contributes to the work environment. A good communication process between the management and the employee can fulfill some basic human needs, such as, the need for security or merits recognition. Thus, a simple message that praises the employee for a properly performed activity can ensure the satisfaction of these needs. Since the communication is woven from a complex set of stakes, any communication, in its essence, tries to influence at various degrees, the mobilization of each individual, defining the relationship with the other or individual positioning.

In order for the employee to obtain the expected performance and to feel appreciated, the respect is indispensable. The entire staff will work much better if they know that they benefit by the management's respect for their involvement and work.

On the other hand, it is also well known that in an organization there are employees who have a strong desire for promotion, and their expectations, embodied in the fact that intense and quality work leads to promotion, represents a strong motivation. (Military, 2005, p.67).

In other words, teamwork increases employees' motivation, keeps them involved in what they usually do, perceives work more attractive. Employees need affiliation, and teamwork can help them by increasing interactions between members, to meet their needs. In management, the team building programs are learning programs, and also a teamwork that combines effectively learning with the participants' relaxation and fun, is an excellent way to increase organization's performance, to integrate the group members' creativity, talent and skills. The interaction between the team members' strengths will facilitate the achievement of its common goals.

The result of employees' motivation consists of their satisfaction or dissatisfaction. Job satisfaction is the degree to which the expectations match the real rewards, being inextricably linked to the employee's behavior at work. Among the elements which influence job satisfaction we mention the following (Bîrcă, 2018, p.192):

- good salary;
- sufficient help and resources;
- job security;
- sufficient information;
- interesting work ;
- friendly and helping colleagues;
- clearly defined responsibilities;
- the efforts' visible result;
- job authority;
- competent supervision.

We firmly believe that ensuring an adequate level of job satisfaction has a particular relevance, as it does not cause stress and does not encourage social laziness, causes employees to put more effort into performing work tasks and display beneficial behaviors from the perspective of the organizational climate.

5. Conclusions

The necessary conclusions can draw attention to the fact that the first and main concern for the companies should represent a positive motivation of employees and that any form of staff motivation should be approached as a long-term investment that will generate many benefits to the organization. We hinder ourselves to highlighting only what experience has shown us, namely that from the quality assurance perspective, staff motivation is an important condition. Motivation is one of the most important factors in the implementation of modern quality growth systems in companies, and the

content and ways of motivation that an organization uses, are reflected in its own organizational culture.

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The Organizational Consultancy and Communication in the Covid-19 Pandemic

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Abstract

In the context of the requirements of physical distance and health security imposed by the global Covid-19 pandemic situation, it is necessary to adapt consulting services and organizational communication. The aim of the paper is to identify the adaptation measures taken by economic organizations and entities, in their concern to facilitate the communication of information of public interest, necessary to make effective decisions on adaptation to the restrictions generated by the pandemic crisis. Crisis management consultancy and support for combating the effects of the crisis in the community are areas that become the concern of specialized practitioners professional services for managers and can focus their services on the staff of an organization in isolation imposed by the authorities or performing work activities at at home, adaptation being made to reduce the effects of the pandemic on the organizations and communities in which they operate.

Key words: organizational consultancy, organizational communication, Covid-19, online, philosophical practice.
J.E.L. classification : M10, M14

1. Introduction

The Covid-19 crisis is generated by the existence and effects of the pandemic to which all mankind is subjected and to which the possibility of response is limited, due to the fact that an invisible entity attacks human beings and produces victims, testing thus the medical centers, which are in a position not to have the necessary means to effectively fight the pandemic Covid-19 virus, through its presence in most countries. All states have had defensive reactions, taking harsh individual isolation measures, that have led to the cessation of day-to-day activities, except for those necessary for human existence and the functioning of the vital structures of a society, meaning that governments have stated with some ease "the state of emergency", as being the only immediate solution, derived from the extent of the global pandemic, but also from the lack of information about the mode of action and effects of the Covid-19 virus, which soon became a global pandemic. The measures taken by the closure of economies, by stopping current production and service activities, in the context of the beginning pandemic of a global crisis, have generated negative effects for all economies, implicitly attracting increased financial effort, in an attempt to compensate for losses at the level of organizations but also at the level of the person, who were obliged to take firm measures to protect public health and people working in each economic sector. Thus, some of the activities, if their specificity allowed, were transferred to the work format at home, employees using online connections to communicate with the organization.

Starting from the analysis of these experiences and the unwanted measures to which all mankind has been subjected, we believe that the use of specific elements of counseling, including that derived from philosophical practice, along with some specific forms of communication in crisis situations, can help us to overcome crisis, by rediscovering the common good followed by the activation of a real human solidarity, which has as main directive the protection of each person, which will implicitly lead to the protection of the whole society. We believe that both philosophical practice, in the form of counseling and consulting applied to individuals and organizations, together with a segment of communication, that of organizational communication, have a huge potential for support for all state entities and institutions involved in combating the global pandemic, and fro that reason we consider that the real involvement of specialists and practitioners in these specializations is necessary, in order to be attracted as experts in decision-making teams, both at medical and crisis management level, or who can offer their specialized services to both individuals or groups. of people who need support in understanding and accepting the restrictive measures to which they are subjected, or by attracting them to the level of organizations operating in the economy, which have been affected by the crisis in various forms. The paper presents some adaptations that can be made to the forms of philosophical practice, applied ethics and organizational communication, by presenting services that can be carried out online or by rethinking activities, especially those specific to organizational consulting, which must be adapted to new requirements of physical distance or the health norms imposed by the pandemic state. Among the major effects of the state of emergency, in which a large part of the planet's people were forced to accept them immediately, by ceasing activities, isolation at home, combined with work from home (if the specificity of activities allowed this possibility, and using the Internet as a means of communication), that effects was felt mainly by those who repositioned their activity at home, as well as by their families, but also by the economic entities and the communities in which they are located.

2. Theoretical background

To talk about adaptations of the philosophical practice of the pandemic crisis, it is necessary to briefly review the philosophical theory of utilitarianism, initiated by Jeremy Betham (Buckingham, 2011: 190) and continued by John Stuat Mill, (Mill, 2014), who supports the application of the principle common good, taken for the benefit of as many people as possible, a theory that we believe should be the basis of decisions of an organization or community, interpretation in the sense that a person can make decisions that affect only his person, not that of to harm others by his decisions or actions. In order to understand and accept the measures taken by the states of the world in combating the effects of the Covid-19 virus pandemic, we also consider the fact that human society can be seen as a social contract, an idea developed by philosophers Thomas Hobes, John Locke, Edmund Burke (Buckingham, 2011: 172), and later by Jean Jacques Rousseau, who stands out by presenting a model of social contract, in the book of the same name (Rousseau, 2016). A direct involvement of philosophical practice in the life of the society affected by the pandemic crisis they can have practitioners and ethics specialists in organizational consulting, as well as communication and decision-making consultants, the specialists who can successfully work in teams of leaders and managers, and who were surprised due to the effects of the pandemic crisis, they were forced to make quick decisions, caused by government measures to cease activities or to transfer activities online or at the employee's home, to avoid the health risk of the person, by atack of the pandemic virus.

The global pandemic has brought many challenges to company leadership, which are subject to unprecedented medical restrictions, which have required a rapid adaptation of production strategies, followed by a rethinking of product and material flows to meet the requirements of protection of the staff but also of the community where they work. The actions of the leaders have changed radically, by amplifying and taking of responsible measures to ensure care for the other members of the organization but also for all members of community.

If prior to the pandemic crisis, leadership had a dominant tendency for the personal development of the management team, to achieve a set performance targets, followed by the organizational and social leadership, reflected by the social responsibility measures of the organization, now priorities are changed, and they focusing on the last two categories of leadership stated, both organizationally and socially, in order to respond promptly to all the challenges posed by the pandemic crisis. The need to develop social leadership was anticipated by the spiritual leader Dalai Lama, who had a dialogue with economist Sander Tideman in 2015, and they highlighted the need to implement social leadership in business (Tideman, 201: 265), thus influencing the common goal pursued, through rapid changes and adaptations, as an effect of the crisis facing humanity.

Taking the measures for pandemic, the guvernment have affected both sectors of the economy, both public and private, with serious influences on jobs, unemployment at first being of a technical nature, through the partial remuneration of employees, during the state of emergency, after which the unemployment became effective through the closure of economic activities or the bankruptcy of companies. Another part of the activities was relocated in the form of work at home, where the characteristic of the activity and the logistics offered favored relocation, a measure that deeply affected many groups of workers, their families but also organizations that reduced certain sectors of activity managed to protect the health of employees. In support of those who have had the chance to relocate at home, counseling specialists can intervene by offering online counseling sessions, which can be conducted either individually, at the initiative of the person or as a group, at the initiative of the employer who appreciates and knows the efficiency intervention of a specialist, to resolve the problems caused by restrictions imposed to limit the spread of the pandemic and protect communities. To combat the pandemic crisis we are going through, many practitioners met online in July 2020 at the annual meeting of practitioners, at which Vaughana Feary, vice president of the American Association (APPA) launched the topic of debate, about how philosophical practitioners can intervene in the context of the crisis caused by the Covid-19? (Feary, 2020), some of the papers presented were published in the journal Philosophical Practice, which provided ample editorial space for a special session on specific topics to combat the effects of this global crisis.

A concern in this regard was maked by Brazilian practitioner André Almeida who presented at the International Conference of Philosophical Practitioners (www.icpp2020.ru) a model for using philosophical practice as a way to support business executives during crises (Almeida, 2020), and he brings arguments in favor of philosophical practice, which provides tools to support the leaders of organizations. Almeida's approach is based on the premise that directors are constantly faced with choices that may be contrary to the ethics or performance required of the company, which involve dilemmas regarding making optimal decisions about dismissing employees, reducing or closing the business. In times of crisis the choices that leaders have to make are special, with effects on communities, which is why philosophical practice offers practical solutions and good specialists who can provide support to managers in times of crisis, they can act directly or in mixed coaching teams, along with other specialists involved in supporting leaders, for making difficult decisions.

Given the conditions of physical security, especially those of physical distance imposed by the authorities, we also consider the practices of individual or group philosophical counseling, which can be done online by specialized practitioners, the virtual environment becoming a safe work option, being used successfully by both parties involved in the process, by using connections or online communication applications, in audio-video format, which becomes a real meeting place, virtual this time, used for an effective counseling process or applied consulting.

The practitioners who worked during this period to individually counsel the people affected by the pandemic, they considered necessary the adaptation of the counseling practice methodology, aimed at observing the manifestations of the counselee, they are concerned to reduce and combat the emotional effects of the pandemic on the person, taking into account the fear of virus, according with the real risk of contamination, efects which also affected the health of the person, with major risks to his life, due to the severity of the disease and due to ineffective medications to fight with this disease. The pandemic has radically changed the lives of most people, by exposing all of humanity to

pandemic risk, but also by the uncertainties generated by it, which highlights the fragility of the human being in front of an invisible enemy, which requires the development the awareness of the person and to the community level (Repetti, 2020), a process in which philosophical practitioners and specialized consultants can be actively and efficiently involved, especially if they are included in work teams, to provide specialized service packages to the vulnerable staff within the organization, which has been the subject to the pandemic restrictions.

American consultant and practitioner Eklof Todd shows the possibility of philosophy to get involved in solving global crisis problems, which are similar to other major problems that philosophers have or have faced and solved many times (Eklof, 2020), referring to well-known philosophers, such as Thales of Miletus, Epictetus, Marcus Aurelius, Søren Kierkegaard, William James, John Dewey, Erich Fromm and Lou Marinoff, philosophers who also considered the healing side of philosophy, which can be applied in combating the effects of the current crisis. If prior to the pandemic, practitioner Lou Marinoff frequently used in his philosophical practice references to philosophical works, which were studied and discussed with the counselee persons, in the form of bibliotherapy (Hațegan, 2018: 158), the concept can be taken up by other practitioners interested in the counseling and counsultancy offered, referring to works of literature that addressed the theme of pandemics, the author referring to the novel *Plague* by Albert Camus or other works from the universal literature in which useful ideas for current counseling practices are identified (Jones, 2020), and these can be recommended as life lessons to clients to understand the course of events in other times, in which humanity has faced such pandemics or crises.

3. Research methodology

In order to carry out this work, we started from the observation of the pandemic crisis situation faced by all countries of the world, local communities and implicitly economic and service organizations, as well as institutions called to ensure the protection of public health; followed by studying the actions and measures that have been taken, especially at the level of business organizations, to reorganize the activity and adapt to the restrictions imposed in combating the effects of pandemic. By studying the scientific papers and communications maked by the specialists and practitioners in organizational consulting, we aim to generate questions that lead us to finding arguments to support the opportunity to implement working methods and tools specific to the field of philosophical practice for organizations, adapted to new forms of work, namely the presentation of online organizational consultancy, as a necessary solution to meet the requirements of physical distance from participants in the counseling process, with particular reference to management teams facing optimal measures for crisis management. The research is also extended to the crisis measures taken in the communication process of organizations, the way in which it was adapted to the crisis situation, and the reporting to the existing theoretical model, specific to the crisis communication of organizations. The argumentative analysis used is also based on the formulation of questions to generate answers, followed by observations on the effects of the crisis on the organization and the community, as well as the generation of conclusions on improving crisis management, organizational communication and marketing, as support measures. and improving the work of organizations to overcome and limit the effects of the crisis.

4. Findings

4.1. Characteristics of adapting consulting to the online mode

In order to highlight these specific features generated by the adaptation of organizational or group consultancy to the online environment, we must show what are the advantages that support these changes, in addition to the urgency imposed by the severity of the pandemic, which accelerated the transition to online communication; in this field of consulting, considered so far to be one dedicated to direct meetings between the specialist and the participants in the process. A first advantage of such

counseling, conducted online, is the elimination of so-called space-time limitations, which were often imposed in direct meetings, which were held in specialized locations or offices, often with a limited time available which results from the agenda of the counseling participants, offering them moments of reflection, which can be useful to achieve the stated purpose of the counseling process.

Another advantage is given by the so-called *the screen effect*, which can generate a disinhibition states on the participants in the process, who benefit from the facilities offered by the screen of a computer or telephone, through which video communication with the counseling specialist takes place (Weinberg, Rolnick, 2020: 356), followed by the advantage of ensuring the confidentiality of the counseling and consulting process (Weinberg, Rolnick, 2020: 379) resulting from the same organized framework of the consulting process, and which is applied to all communication between the specialist and the recipient of his service, including on correspondence that takes place before or during the process, through the use of other means of electronic communication, such as email, working groups or forums, applications or platforms that allow meetings such as videoconferencing, and which allow the participation of groups of people who can benefit from the advice provided by a facilitator specialized in organizational consultancy or group counseling. The next benefit is provided by technology, which in addition to facilitating online communication, also offers the option of recording a work session, if participants agree, so that the recorded material can be reviewed later by either party, a facility that can help achieve the objective proposed at the start of the counseling or consultancy process, or to provide clarification on the topic under discussion or the dilemma under discussion. The online format offered through the videoconferencing procedure will avoid any interpersonal interactions of the participants, throughout it, which take place spontaneously in face-to-face meetings, because the application used for online communication allows the facilitator for monitoring the participants on the same screen, and he will also establish the order in which they can intervene on the topic or subject under debate. We recommend that before starting an online workshop, the parties clearly define their conditions and rules to be followed throughout the procedure, review and ensure that they have the skills and abilities to use technology and programs that facilitate online communication, and take measures to ensure optimal working conditions, by eliminating disruptive factors (telephone, bell, noises, etc.) and avoiding interruptions during the consulting or counseling process.

4.2. Aspects of organizational communication in times of crisis

The communication is considered to be an important element in a defense system of each economic entity facing specific crisis situations (Haineș, 2008: 135), all the more applicable to the pandemic state in which humanity is now, this being one of the situations that can be considered a major crisis, which requires the adoption of rapid solutions to adapt economic activities to the conditions of physical distancing, in order to protect the health of all staff of the organization and the community. The management teams focused on an effective internal communication with all employees, in order to maintain the security and the feeling of belonging to an involved organization, concerned with protecting their lives, and ensuring continuity, specialy if the specific activity allowed the relocation of activities that can be carried out from home, in the form of telework, or through organizational measures to ensure the desired distancing, to protect their health. Communication with employees during the covid-19 pandemic is a topic for researchers, who aim to track what they communicate and how they communicate with them. (Sanders et al., 2020).

To this sense, the investments have been made in the field of IT and connectivity, measures by which employees have been supported to carry out some activities from home, through online connections or applications, or through video communication platforms, which have ensured operational communication between the management team and departments or work sections within an organization. Digitization also had negative effects because it excluded from communication people who did not have access to the Internet, especially children from poor areas or those who do not know how to use a computer, such as retirees (Barnes, 2020).

In order to increase the compliance of all staff in compliance with preventive and protective measures, taken in the context of the pandemic, we believe that the entire communication process that takes place at the organizational level, must meet minimum requirements in order to communicate decisions regarding these aspects should be made operative, clearly, through crisis cells or compartments, made up of managers and specialists in organizational communication, compartments that become functional in crisis situations, of any area. The correct, efficient and operative information process of all the workers of an organization, on the pandemic effects within the organization, as well as the updating of the measures taken to combat it, must become a concern of each management team, by using online communication tools, in the form of the information addressed to all staff, or through communiqués addressed to the community in which the economic entity operates, in order to position itself in consensus with other measures taken within the community to protect the life and health of employees and their families.

In this field, the leadership has in attention the Corporate Social Responsibility (CSR) actions, to be destined including for community, referring about all organizational measures or actions for protect his employees, to combat the pandemic effects, and for doing that, they can use the press online or media communication tools for promoting the CSR reports in community where was included information about the impact of Covid-19 in organization activity. Leadership also has as its main concern to provide all employees with the necessary income or options to access emergency funds offered by the government in an attempt to offset the effects of the crisis, through measures taken that have severely affected some sectors, such as the hotels and restaurant services sector, which were forced to cease operations in a so-called the lockdown by world governments, which have led to huge losses in these areas, both for companies and this sector.

The communication strategies of an organization must take into account all the elements of the crisis, which affect both the organization and the people who position themselves in a certain way, to take into account emotional aspects generated by the evolution of the pandemic state, to carefully monitor the reactions obtained. following the organizational communication carried out, also aiming to achieve strategic communication, which can have the effect of reducing the effects caused by the pandemic, using for this purpose specialists who can send correct messages, which can influence or induce specific compliance behaviors , on compliance with the announced rules and measures imposed by the authorities to overcome the crisis. With the establishment of isolation state, people sought new directions of communication, using excessively and compulsively the social networks or other media streams, which often presented unverified and alarmist information, which led to the maintenance of a general state of panic or anxiety, also generated by the measures taken by the authorities to combat the pandemic crisis. An alarm signal on the excessive use of the Internet, which can significantly affect a person's self-perception, was recently maked by the American practitioner Alexander Schumm who makes references to philosophers such as: Marcus Aurelius, Kant, Heidegger, to supports his arguments recently published in the special issue of journal - *Philosophical Practice* (Schumm, 2020), drawing on the experience of practitioners in philosophy, actively involved in providing online services to both individuals and economic entities interested in this new type of counseling and consultancy.

4.3. The pandemic adaptations of the practices for community

The consultancy and applied ethics services are also useful in community entities or administrative institutions that have a decisive role in local crisis management, which had to making decisions for the community, especially when due to the high rate of contamination, they have established measures to quarantine or isolating affected areas, or entire communities, in order to protect the affected community by the pandemic virus. We also find the effects of the pandemic crisis in the smaller communities, such as senior care centers or support centers for disadvantaged people, who need specialized support to deal with the effects of the imposed isolation and to be aware of the need to comply with the rules for physical distance, to protect the health of the person and the group, a situation in which among the specialists who can be attracted in counseling activities may include

new specialists, the philosophical practitioners, with expertise in these sensitive areas, or experts in facilitating groups, who can use the meeting in online, in safety for all participants, to reduce the effects of the pandemic. The bioethics specialists come from philosophical practitioners area, and they can be attracted to support staff in the field of palliative care for patients, by organizing online meetings with them or with the asisted persons's families, to clarify issues related to the patient's suffering, but also other amplified fears of the pandemic. Moreover, at the level of some communities, we consider it necessary to create public debates in which the philosophical specialists, the ethicists and organizational consultants, along with other decision-makers for the community, can participate, to argue and combat some current trends that have occurred sporadically and only in small communities, through manifestations of exclusion or avoidance of persons who have been unlucky enough to become ill and who are stigmatized for doing so, although they have been declared cured and do not pose a danger to the family, or for this reason they having the problems with access to certain organizations, workplaces or other unexpected restrictions.

The organizational consultant is now the specialist who can include in his package of services the solution of this type of problem, which may occur in the selection of staff or promotion to certain positions, and through the advice provided, can influence firm measures or decisions to avoid any such discrimination, such as the exclusion or marginalization of persons in the organization who have contracted the disease caused by the Covid-19 virus but who have recovered and may presente negative tests in order to be reintegrated into the organization or the community, where they belong.

5. Conclusions

The paper started from the study of the restrictive conditions generated by the global pandemic state, which imposed the new adaptations in the field of consulting services, provided by specialists through technology, which can facilitate remote meetings, ensuring the safety of individuals participating in individual counseling or organizational consultancy, to which we refer, as well as in making decisions by the leadership of companies, by involving them in social actions designed to support the community in times of crisis. All these adaptations presented, on the philosophical practices performed by specialists in various forms, have now become more than necessary for a human society undergoing a major crisis generated by the pandemic virus, adaptations that can play an important role in managing and limiting the effects of the global crisis who surprised the whole of humanity, and which imposed restrictive measures with future effects on the people, the national economies and contemporary society as a whole.

The topic aproach in this paper can be continued and researched in the future by mixed teams, consisting of researchers concerned with economics and business, which can be joined by practitioners in the field of philosophy and ethics, or other specialists interested in developing the new professions, such: the ethics counselor or the organizational philosophical consultant, wich are promoted as a new specializations of philosophical practice, with high potential in providing professional services for individuals, organizations, institutions and communities.

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The Imortance of Organizational Culture in the Management of Organizations

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Abstract

Organizational culture is like a person's personality: it is hard to build, it changes even harder. A strong organizational culture would be one in which there is a strong alignment with the values and principles of the organization. An organization with such a culture does not need control systems and bureaucratic systems. People who make up a strong culture do not need additional encouragement, they already unconditionally accept the rules of the game and the organization manages to form a certain type of desirable employee. For this reason, there are many managers who understand the importance of organizational culture management, but this being a little tangible and difficult to measure, it becomes a touchstone that is too little influenced by various culture modeling programs. The purpose of the article is to analyze the main components of modern organization management that influence the organizational culture of the current economy.

Key words: organizations, leadership, culture management, decisions
J.E.L. classification: M15

1. Introduction

Most of the time, the beliefs and principles that guide the members of an organization have behind them factors such as its history, field of activity or technologies and strategies used over time to promote its products or services. Equally, the culture of an organization depends on the type of management promoted within it, the type of employees, as well as the society in which it was founded and developed.

The organizational culture of a company is something we cannot see or measure, it is a complex system of common values agreed at the company level, a set of unwritten rules that guide employees every day. Basically, organizational culture refers to the thinking, attitudes, beliefs and norms that exist in an organization, which are sometimes known by other market players. The organizational culture of a company is born with the establishment of the company and starts from its shareholders and if it is a multinational, then from the top management of the company. The foundations of an organizational culture are laid with the formation of a differentiating environment, a specific climate or its own atmosphere, things that define a company and through which customers or candidates recognize it in the market. Along with the great organizational culture, there can also be various subcultures that, without being in contradiction, each have their own specifics, given the specifics of some roles.

Organizational culture is a subject of management, which is currently given great attention. Worldwide, interest in organizational culture began in the seventh decade of the twentieth century. The large number of definitions shows the special interest and volume of work that has been devoted by researchers to studying this concept, all convinced of the importance of knowing it, but they also show that they have different views on the phenomenon. The study of the organization's culture has

gained more and more importance with the development of transnational companies, with the transition from general management to international management and then to global management.

The way members of an organization operate, treat employees, customers and the wider community, are strong aspects of personal culture and market culture. Personal culture is a culture in which horizontal structures are most applicable. Each individual is considered more valuable than the organization itself. This can be difficult to sustain, as the organization may suffer because of people and competing priorities. Market cultures are results-oriented, focusing on competition, achievement and mission accomplishment. The extent to which freedom is allowed in decision making, the development of new ideas and personal expression are vital parts of adaptive and adhocratic cultures. Adaptation cultures change value and are action-oriented, increasing the likelihood of survival over time. The way in which power and information flow make their presence felt in the hierarchy of the organizational system are aspects of the culture of power, the role culture and the culture of hierarchy. Power cultures have a leader who makes quick decisions and controls strategy. Cultural roles exist where functional structures are created, where individuals know what they have to do, report to their superiors and value above all efficiency and accuracy. Hierarchical cultures are similar to role cultures in that they are highly structured.

Organizational culture is nothing more than the attempt of enterprises to adapt through diversification, by forming their own cultural characteristics not so much to highlight its specificity and to oppose other enterprises, but to resist competition and evolve positively.

An absolute definition would allow not only a more rigorous study of organizational culture, but also an understanding of how it influences other organizational outcomes, such as productivity, employee involvement, and commitment. One thing is undoubtedly known about culture: it is constantly created, changed and shared to ensure the success of its organization.

2. Literature review

Organizational culture is defined as a mix of beliefs, assumptions, values and ways of interaction that contribute to the unique social and psychological environment of an organization. Organizational culture includes an organization's expectations, experiences, philosophy, and the values that drive its members 'behavior, and are expressed in members' self-image, internal activity, interactions with the outside world, and future expectations. Culture is based on attitudes, beliefs, habits, written and unwritten rules that have been developed over time and are considered valid (Vlasceanu, 2003).

Culture is a collective phenomenon because it is at least partially accepted by people who live and work in the same social environment where it was learned. In the context given by culture is meant the totality of ideas, values, traditions of a distinctive group of people. The bearers of organizational culture are the people Stanciu and Ionescu, 2006). But in an organization with an already formed organizational culture, it is abstracted from people and becomes an attribute of the company, a component of it, which has a strong impact on team members, transforming their behavior in accordance with norms and values, which is its foundation (Roșca and Vărzaru, 2005).

Most of the time, the beliefs and principles that guide the members of an organization have behind them factors such as its history, field of activity or technologies and strategies used over time to promote its products or services. Equally, the culture of an organization depends on the type of management promoted within it, the type of employees, as well as the society in which it was founded and developed (Preda, 2006).

According to human resources specialists, over time several types of cultures have been identified: clan type (refers to team-based organizational culture, collaboration and cohesion between its members) or start-up type (refers to companies in which each employee is responsible for his or her work and where he or she can value his or her creativity), but in essence they all translate into relatively common and unitary norms of behavior. Team managers, HR people or those who interact directly with employees also have an important role (Stanciu and Ionescu, 2006). They are responsible for communicating and consolidating the fundamental elements that make up the organizational culture. A leader must appreciate his role in maintaining or evolving the culture of an organization. A deeply embedded and established culture illustrates how people should behave, which can help employees achieve their goals.

This behavioral framework, in turn, provides greater job satisfaction when an employee feels that a leader is helping them achieve a goal (Armstrong, 2003).

Leaders in the organization are vital to creating and communicating workplace culture. However, the relationship between leadership and culture is not one-sided. While leaders are the main architects of culture, an established culture can also influence a possible leader (Burduș and Căprărescu, 1999).

Nowadays, organizational culture refers mainly to the values and practices that employees of a company or institution share. These values and practices are closely related to the business objectives of the organization and are somewhat dictated by the need to outperform the competition, build a strong image in the market, attract customers, partnerships and, ultimately, profit (Bărbulescu, 2000).

Therefore, the elements of a healthy and successful organizational culture should include things like a clear mission, dedicated and skilled staff, integrity, trust, effective leadership, efficient systems and processes, rewarding performance, customer orientation, effective communication, learning continuous and professional development, adaptability and innovation.

Finally, we must remember that all these principles can turn into simple theory if they are not implemented, if they are not communicated and promoted effectively among employees in all departments. This can be done through brainstorming, presenting models of good practice, information or regular reminders of the values that make the organization, through its employees, respectable and successful.

3. Research methodology

In order to identify the most important organizational aspects related to gender, a questionnaire was subsequently applied to civil servants from several public institutions in Romania. The survey was conducted between April 4 and June 27, 2020, collecting 97 valid questionnaires.

In this article we have adopted the Denison Organizational Culture Survey (DOCS) as a way to measure organizational culture. Denison's model distinguishes four dimensions of organizational culture:

1) Power-oriented culture
2) Role-oriented culture
3) Task-oriented culture
4) Person-centered culture

The characteristics of each dimension of organizational culture are presented in Table no.1.

Table no. 1 Characteristics of the dimension of organizational culture

Power-focused culture (spider web type)	**Role-oriented culture (temple type)**	**Task-oriented culture (network type)**	**Person-centered culture (swarm type)**
promoted values: individual performance	the values and perspectives, given by the *roof* of the temple, are clear, expressed in writing, with the obvious tendency towards stiffening;	the distribution of tasks is done according to the intellectual and professional potential of individuals;	the structures of the organizations are put at the service of the interests of the individual;
harsh, harsh atmosphere	discipline, compliance with procedures, internal regulations;	staff have autonomy in choosing how to perform tasks;	the individual can leave the organization at any time, but it cannot dismiss him;
integrative situations are rare;	perspective individuale restrânse și legate de îndeplinirea unui rol specializat;	promoted values: creativity, teamwork, achieving common goals before individual ones;	concepts: professional authority;
success is accompanied by a low level of satisfaction;	relatively calm atmosphere, protective for individuals, who are provided with the possibility of a professional specialization;	perspectives: at the level of the obtained results;	promoted values: performance, individualism, indifference to the organization;

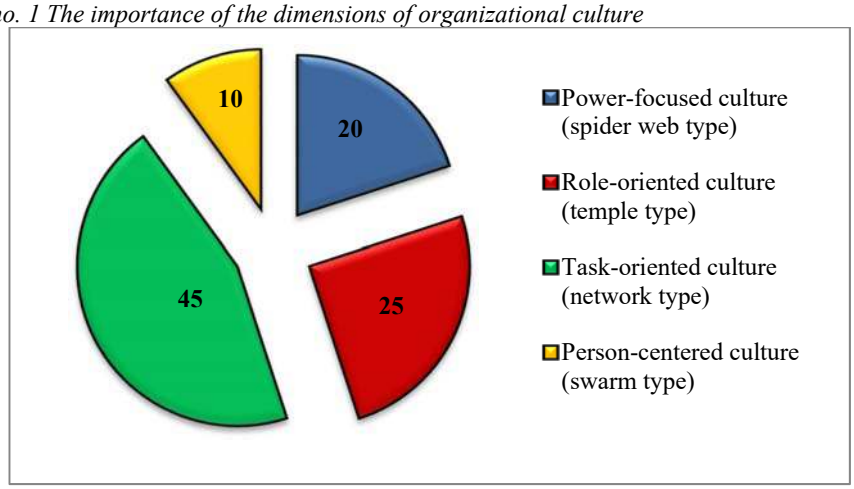
increased staff turnover;	rituals: less integration, less frequent differentiation, which marks differences in status between the *roof* and the columns of the temple.	basic concepts: confidence in man, in the ability of creativity, self-direction and control, high level of responsibility.	reduced attachment to the organization.

Source: Developed by authors through adaptation and processing after Bărbulescu, 2000

4. Findings

We found that 45% of the interviewed employees appreciated the main dimension of organizational culture is represented by *Task-oriented culture (network type)* - Figure no.1

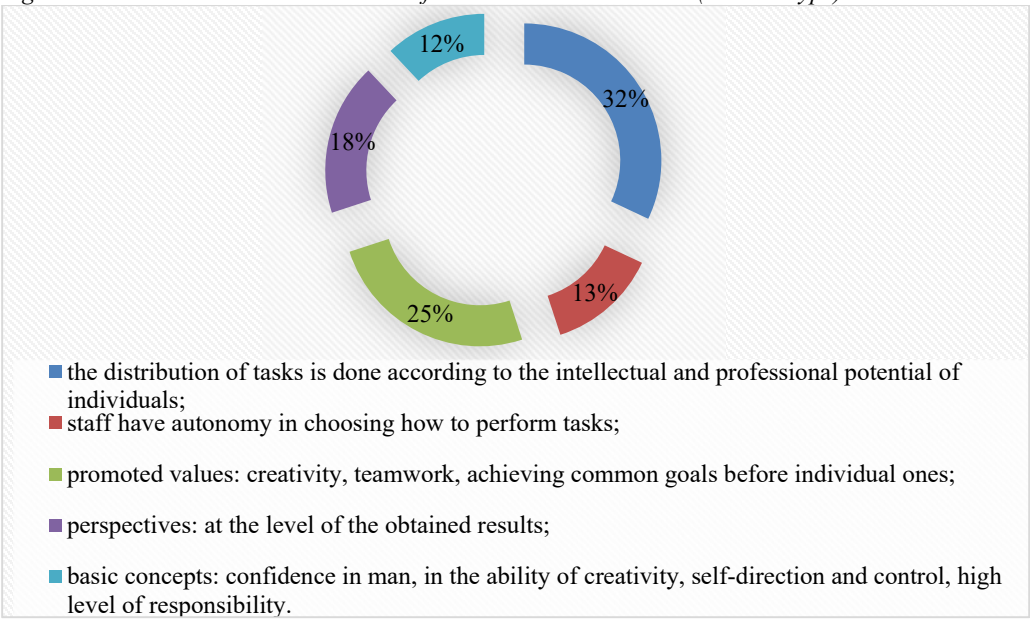
Figure no. 1 The importance of the dimensions of organizational culture



Source: the author's own concept

The impotence of each type characteristic: *Task-oriented culture (network type)* is illustrated in Figure no.2

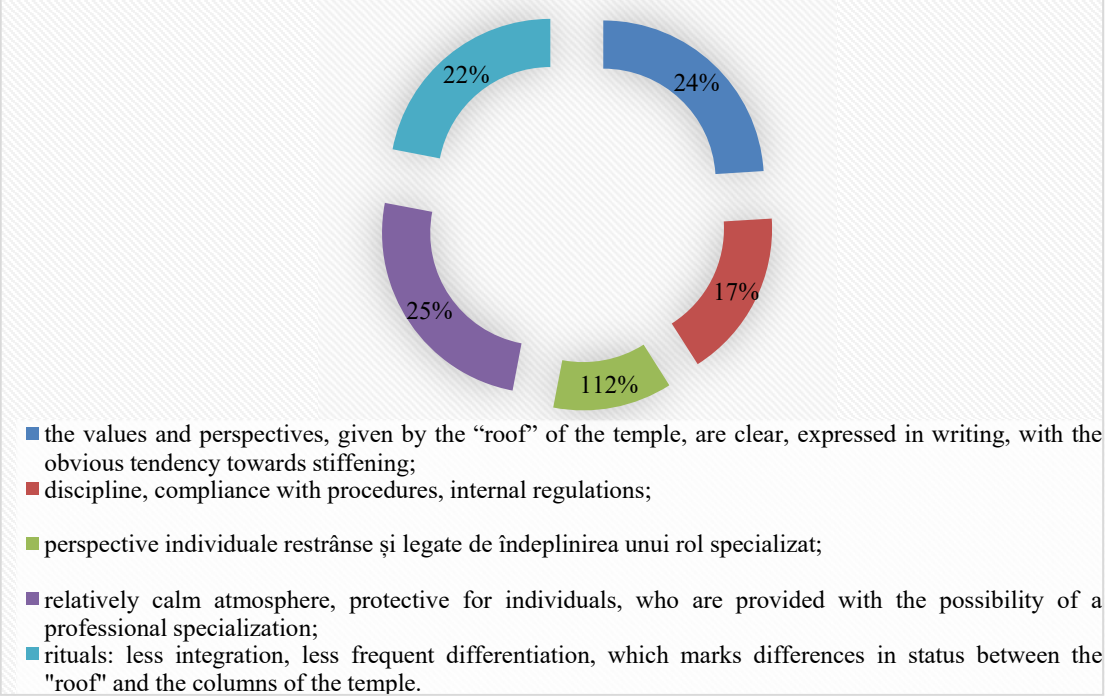
Figure no. 2 Characteristics dimensions of the Task-oriented culture (network type)



Source: the author's own concept

In second place in importance, with 25%, is *Role-oriented culture (temple type)*. Figure no.3 shows the importance of each characteristic of the type of *Role-oriented culture (temple type)*.

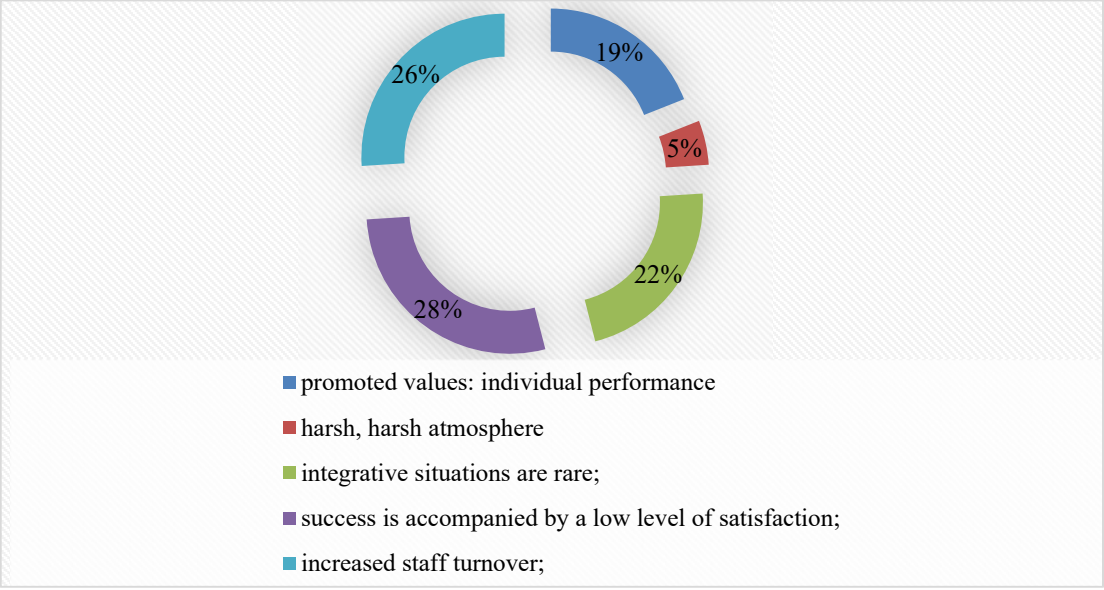
Figure no. 3 Percentage of each characteristic that makes up Role-oriented culture (temple type)



Source: the author's own concept

In third place in importance, with 20%, is *Power-focused culture (spider web type)*. Figure no.4 shows the importance of each characteristic of the *Power-focused culture type (spider web type)*.

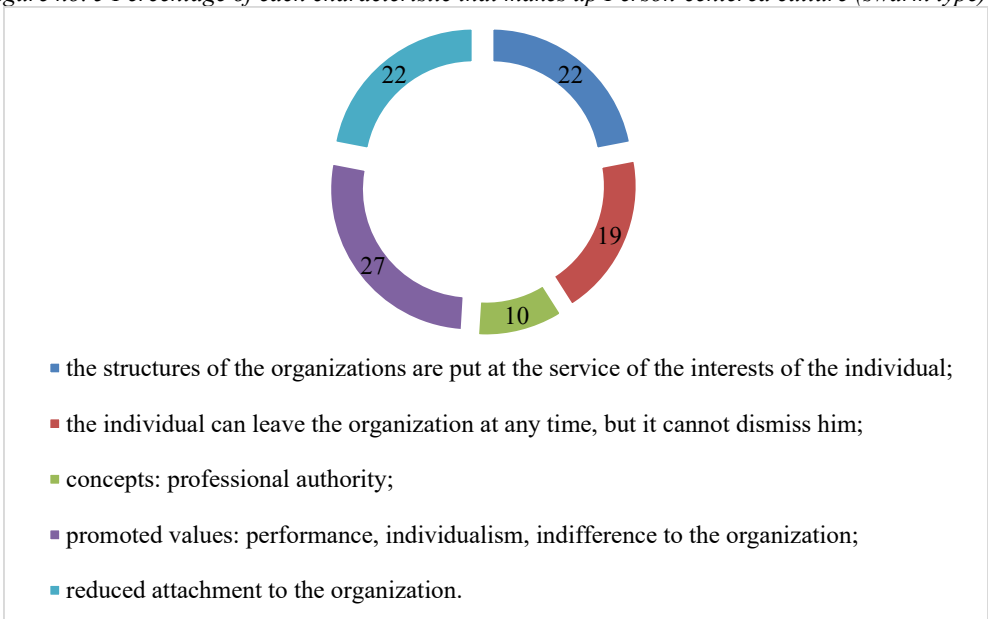
Figure no. 4 Percentage of each feature that makes up Power-focused culture (spider web type)



Source: the author's own concept

On the last place was *Person-centered culture (swarm type)* with a percentage of 10%. Figure no.5 shows the importance of each characteristic of the *Person-centered culture type (swarm type)*.

Figure no. 5 Percentage of each characteristic that makes up Person-centered culture (swarm type)



Source: the author's own concept

5. Conclusions

Consciously or not, each organization possesses a culture that is more or less consolidated and situated on several levels. Wherever people form a community, a culture is born. Organizations not only possess a culture, they are a culture. The culture of an enterprise is transmitted, it is learned, it is able to adapt, it is multiple, it is only partially conscious and it exceeds the level of the individual.

Organizational culture has a number of dimensions and attributes according to which it is structured: the external environment, the mission, the strategy and the goals at the strategic level. Changing the culture of an organization is an effective way to apply the terms in question in its definition. For an organization to function, the organizational culture must be passed on with conviction to the new members and they must perceive it as valid. If every generation that enters the organization brings new values and perceptions, culture would no longer be stabilizing for the organization. This process of transmitting the organizational culture to the new members allows its testing, ratification and validation. Organizational culture improves the stability of the organization and provides its members with the understanding they need to discover the meaning of events and activities that take place in the organization (in everyday activities). It is necessary for an organization to implement and promote a constructive culture (less a defensive one), to understand its consequences and to focus all its efforts on its strengths, on its elements of authenticity. Organizational culture is in fact an ongoing process. The better the culture of an organization, the greater the concern to maintain and improve it. People's behavior is dictated by their values. In addition, a high level of transparency, openness, excellence in leadership, a culture of feedback, customer orientation and achieving results in a sustainable manner are essential elements for a successful organizational culture.

Cultural change must be accompanied by changes in formal organization and specific actions; change cannot be achieved only through ideas, concepts and trainings. Visible changes at the formal level can induce the necessary atmosphere for cultural change and can create favorable conditions for acceptance by members. Changes must be substantiated and planned coherently on the basis of a strategy that targets all levels and forms of manifestation of organizational culture as well as formal relations.

As it has been observed, the organizational culture has the role of an organizational binder, it ensures the internal coherence of the organization. Secondly, it is also part of the organizational learning process, by transmitting from one *generation* of employees to another the patterns of successful organizational behavior. Finally, it is part of the managerial process, influencing management practices and the philosophy of managers.
In my opinion, organizational culture is the specific and unique imprint of the values, beliefs, traditions, processes and behaviors of the people of an organization that determines its functioning and performance, in other words the relationship in the internal and external environment. For the organizational culture, the defining are the conscious and unconscious human elements, rational and irrational, group and individual, between which interconditioning relations take place.

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Management for "Online" Sales, Present and Business Development Perspectives

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Abstract

At present, in the special conditions of our society, the sale through internet, at some companies, has taken a big boost, it has reached very high turnover, comparable in some fields, with those of the big chain stores. The health crisis has uncovered many companies, which have failed to find solutions to maintain their business, not to lay off staff. In this crisis situation, it is important to know, not only by customers, but also by specialists, this way of doing business, the implications it has for the management and marketing of companies involved in this type of business. The paper presents the current situation of "online" sales, the challenges for managers and the prospects of this type of trade in crisis conditions.

Key words: trade, internet, manager, development
J.E.L. classification: M15, L81

1. Introduction

For many years, much of the trade has focused on "online" sales. Today, many manufacturers and wholesale distributors have created their own electronic systems, connected to this type of business and do these businesses in parallel with the "classic" ones. "Online" sales were promoted and initiated at the beginning, by small traders or intermediaries, but now, the largest companies have launched and are promoting this type of business. It can be appreciated that the business is in "movement" or in an intense development. Today, virtually all large companies in production, transportation and distribution use the Internet for information and promotion, but many have begun to make "online" sales. The year-on-year turnover of companies that distribute products ordered via the Internet is the best proof in the sense of increasing the volume of business, (Iordanoaia, 2015, pg.44-46). Equally important is the fact that a number of companies have developed many types of applications for "online" sales, which they make available to interested companies and after launching sales on the Internet, provide consulting and maintenance. Some companies, such as those that develop specific software, consider launching a successful online store or business portal such as "Business to Business" with a "SeniorE-commerce" application integrated with ERP (Enterprise Resource Planning =, the planning of enterprise resources), at online sales platforms, are tools with a significant impact in organizing and optimizing the sales process", (SS, 2015, pg.1-7).

2. Theoretical background

The concept of e-commerce is relatively new, in scientific research and economic practice, compared to the "classical" research of management and marketing. Nationally and internationally there is a literature, books and articles, which refer to the use of the Internet for business development, for the integration of electronic systems in multiple commerce. In the studied works, I found presented the technical and economic aspects of e-commerce, of selling products or providing services, but less those related to management, running a business, which is related to a portal or a simple online store. There are also a number of statistics on the evolution of e-commerce, the increase in its share in general trade and a number of forecasts on the increase in the volume of goods traded via the Internet. From a legal point of view, the current European Union

legislation is updated, it is comprehensive, easily accessible, in the languages of all member countries.

The study of the current legislation on electronic commerce helps us to understand, first of all, the limitations related to the respect of the buyers' rights, the right to the protection of personal data and to their protection when making online payments.

Fewer studies are related to the provision of services via the Internet, where most of them refer to financial transfers, making payments, withdrawing cash from specialized vending machines, etc. For the other types of services, there is much less elaborate work, because it is much more difficult to obtain information and many services have not yet been purchased online.

3. Research methodology

In order to carry out the paper, I considered the study of specialized works, business management, electronic systems used for promotion and sales, which were published in volumes, magazine articles and websites of companies specializing in software solutions. I studied the situations from several companies, regarding the way they do their business "online". I collected and systematized the information, centralized some of it and optimized it for this study. The methodology used consisted of a systematic, oriented and coherent study, in accordance with the principles governing a scientific investigation in the field of business management, in a crisis situation, such as the current health crisis. Used the method of "transfer of concepts", which consists in taking from scientific papers and practical applications, ideas, concepts and methods important for this type of study. Transferred them in the field of research and I looked for a series of solutions for business development through the internet.

4. Results. "Online" sales nowadays. Portal or online store

This type of business usually starts with the creation of an "online" sales portal or store, which has certain characteristics, which make it very attractive, for several reasons, presented in table 1, but which also, has a series of limitations and even disadvantages.

Table no. 1. Characteristics of the online sales portal or store

No	ADVANTAGES	LIMITATIONS, DISADVANTAGES
1.	The portal is active, visible and available 24 hours a day. It has maximum local, zonal, regional, national and international coverage.	It depends on the internet. Usually, the owners of the servers on which the site is located charge fees or subscriptions. Some servers allow free installation on them, but place ads on site pages.
2.	It is easy to use, offers flexibility in choosing variants.	Requires a detailed elaboration, containing all the products or types of products (services) of the company.
3.	It is easy to promote, directly on the site interface, through emails or social networks.	Promotion through social networks is paid, it generates costs. Email is the easiest, but the use of email addresses of potential customers must comply with the law of personal data protection.
4.	It is in line with current retail market trends.	It requires a careful staff or management to change in the market.
5.	The "employee-client" interface is removed. It eliminates the mistakes that appeared in the relations of the employees with the clients.	Employees also have the role of obtaining or receiving immediate information about customer requirements, which they pass on to managers.
6.	The portal is made by computer program, which can be modified depending on the evolution of prices, the appearance or withdrawal of some products, the appearance of some offers, etc.	It requires hiring a specialist in programming or concluding a contract, based on subscription or work, with a company specializing in programming.
7.	The presentation of the products is made in different shapes, positions, through photos in different sizes, which provide useful and quality information.	It takes time to create a database from which to choose the most representative or important products.

Source: author's study, (Senior Software, 2020).

For the management of a company, the following aspects are important:

- Choosing a portal or online store model, based on existing models or designing a customized model for the company.

- Finding a person or a company to create the portal. Usually, specialized companies have several models available, which they can update or customize.

Online sales platforms are classified into: "B2B" portals and "online" stores.

1. The B2B portal. This is an "online" platform, through which the business partners of a company can place orders, can access the commercial policies they benefit from a supplier, such as personalized prices, discounts, etc. B2B = Business-to-business (or "one business to another"). In B2B, communication is what allows companies to reshape processes. Manual tasks such as: order registration for a standard product, is done by a computer. In this case, the computer controls the entire process, from the transmission of the order, the acceptance of the order by the supplier and the execution of the order, until the receipt of the transport and its verification. At the end, the amount payable is automatically transferred to the suppliers' account. Moreover, companies can use the internet to make purchases, through the so-called "marketplaces", (SS, 2015).

These can be differentiated by the existence of four characteristics so we have: product specificity; duration of collaboration; how to set prices: fixed prices, electronic catalog, price negotiation; the attitude adopted by these "marketplaces", which can favor the seller, the buyer or can adopt a neutral attitude.

2. The "online" store consists of a site through which customers (the general public or companies) can buy the products or services of a company that has created that site. On this site you will find information and data about the company's products and services, being simultaneously a means of promotion, attraction and customer loyalty.

Regarding the choice of the optimal model, the realization and commissioning of the portal, it involves a series of managerial decisions, regarding: costs, person or staff dealing with the portal and monitoring the operation of the portal. Equally important is the knowledge and familiarity with the most important functions of the system that supports the Portal (or the "online" store). Experts believe that these are the following, (SS, 2015):

A). Registration of customers in the portal. It takes place in two distinct stages:

- The client chooses the type of person he represents: natural or legal.

- The customer adds his contact details.

The registration of personal data must comply with current legislation on the protection of personal data (EU, 2016). Sites can be made in two ways:

- Site that requires all the necessary data to identify the client.

- Site through which the customer can place the order, using a small number of identifying information.

Both options have advantages and disadvantages. In the first situation, the company must take all internal measures to protect customer data, (L 190, 2018), (L 363, 2018), (L 102, 2005). In the second case, there is a risk of sending the product to a non-existent address. This situation can be solved by imposing the advance payment or by paying at the destination, when the recipient receives the product, but it implies the responsibility for the customer's data, which must be protected.

B). Products and services offered. The management of the company must decide how to present on the website, the products and services it offers. It is recommended that this be taken care of by marketing specialists or communication specialists, in order to increase the effect of the presentation on the page. Usually, products and services are grouped into categories, so that potential customers have the opportunity to filter the options, depending on personal criteria, different criteria set by the manufacturer or distributor. This implies the existence of a page or section for managing the range of products or services. This page chooses the characteristics used for filtering and the filtering options, depending on: range, type, characteristics, color, price, etc. In this section new products can be added or some existing information can be modified, whenever needed. For each product or service, representative photos can be posted; links can be made to the areas of the site where detailed information about them can be found. Also here you can change the prices; you can display similar products of the company, with different prices, etc. The company

may also recommend certain products or offer bonuses for the purchase of several products or quantities, etc.

C). Details about products and services. Each product or service has a page that contains details about their main features. A customer has very easy access to all technical and commercial information about price, stock, warranty period, maintenance, etc. All products can be added to the "shopping cart", an option used to purchase multiple products from the same company. Basically, the option means adding all the products for the same customer, automatically calculating the total price, etc. All product features are defined and maintained in the portal administration section, where there is the possibility to add products in lists of "favorite products". For these, the customer can then place an order or send a request for quotation, if he has not found the product he is looking for.

D). Customer section. This section is very important for the company, because here, customers can make complaints, suggestions or recommendations. It is the feedback page, which helps the company's management to obtain information that is particularly important for the further evolution of the business, for the elimination of deficiencies and customer satisfaction. Customers can reissue unconfirmed previous orders, complete temporary orders, or reissue their contact information. This page must be constantly monitored by the company's management, being a direct source of information.

E). Transactions performed. Through this option, the company's management and the direct administrator of the portal have permanent access to: the history of orders received on the site, the situation of products accessed and sold, details about the billing date, the customer, his contact details, delivery and billing address, comments and registered complaints, products and quantities sold, total value of sales by hours or days, week, month, quarter, semester or year. From this section, the "proforma" invoice can be retransmitted to the customer, other products can be added to the initial order, bonuses can be granted for the quantities purchased, etc. Managers can change the status of orders, if they are: confirmed, unconfirmed, being delivered, delivered and other situations. The section offers the possibility to send answers to the messages received from customers, the ways of solving the requests can be followed, etc.

F). Back-end section and portal administration. The "Back-end" or "Final Return" section is the section to which only the managers or administrators of the Portal have access. From here they can manage data and information about partners, their orders, customized offers, prices and final reports. In this section you can make various settings of the page, and managers can be warned about the problems they have to solve, about offers, old prices, incomplete offers or products without photos, etc. Publishers' accounts are located in the "Administration" section, along with the "Back-end" sections, to which they have access and where to find the product categories that they can edit at any time. Through this section can be added: categories, subcategories, the order in which they are on the portal, you can set how the product features are displayed on the site, etc.

G). Promoting products and services. On the specialized sites, the promotion can be done through "newsletter" and through the promotion areas, specially allocated for this. The products can be promoted in the online store, through the websites of the partner companies, on the social networks and even on the pages of the media publications. The promotion modalities can be through: individual electronic banners, product promotion areas such as "promotions", stock clearances, daily, weekly or monthly offers, etc. You can also use the "Datafeed" or "Electronic data exchange" models. All information is established in the administration section of the portal, which allows the creation and sending of information such as "News" or "Newsletters" to individuals or legal entities, which have chosen the option to receive information about the company's offers.

H). Integration with the ERP system. Automatic retrieval of products, classifications and prices from ERP (Enterprise Resource Planning) is another possibility for the portal to work. The portal can be integrated with the ERP system, so that all the information related to: products, product categories, prices, commercial policies, bonuses, etc., are automatically taken from the ERP. Discounts and payment terms set in ERP, for certain customers, are also valid for orders placed through the portal. Through this link the stock of the products in the portal is updated in real time.

I). Automatic registration of customers in the ERP system. The portal has the possibility that after the client completes the registration form on the site, all his data (name, address, bank account, phone, e-mail), is automatically taken over in ERP. In this way, the portal operators no longer have to manually fill in the information in ERP.

J). Taking orders from the store directly in the ERP system. After the customer order has been confirmed, it is automatically taken over in the ERP system. This way you can avoid the costs of taking orders over the phone or sending them on paper. ERP system operators can then generate the invoice from the order received in the system. In addition to operators, managers have access to the ERP system, which can intervene where appropriate.

An online sales portal, integrated with the ERP system has two main components as follows:

- ERP connector. This connector provides: ERP interface, security, communication, hiding information (Cache) and confidential data. Due to the advanced ERP connector architecture, which provides caching facilities and accesses ERP web services, in maximum security, the portal can be hosted (Host) in the company's own network, on a separate server or at a specialized provider (provider). The information does not require synchronization, the cache has its own "refresh policy", but there may be a delay between when the information is updated in the ERP and when it becomes available in the portal.

- The portal for "online" sales. This portal accesses the data in the ERP through the connector, allows direct sales, and retains data and information about customers and payments made.

Figure 1 shows the simplified block structure of a portal. This scheme helps us understand the level of organization that these portal models or online stores have reached. Hence the following important aspects:

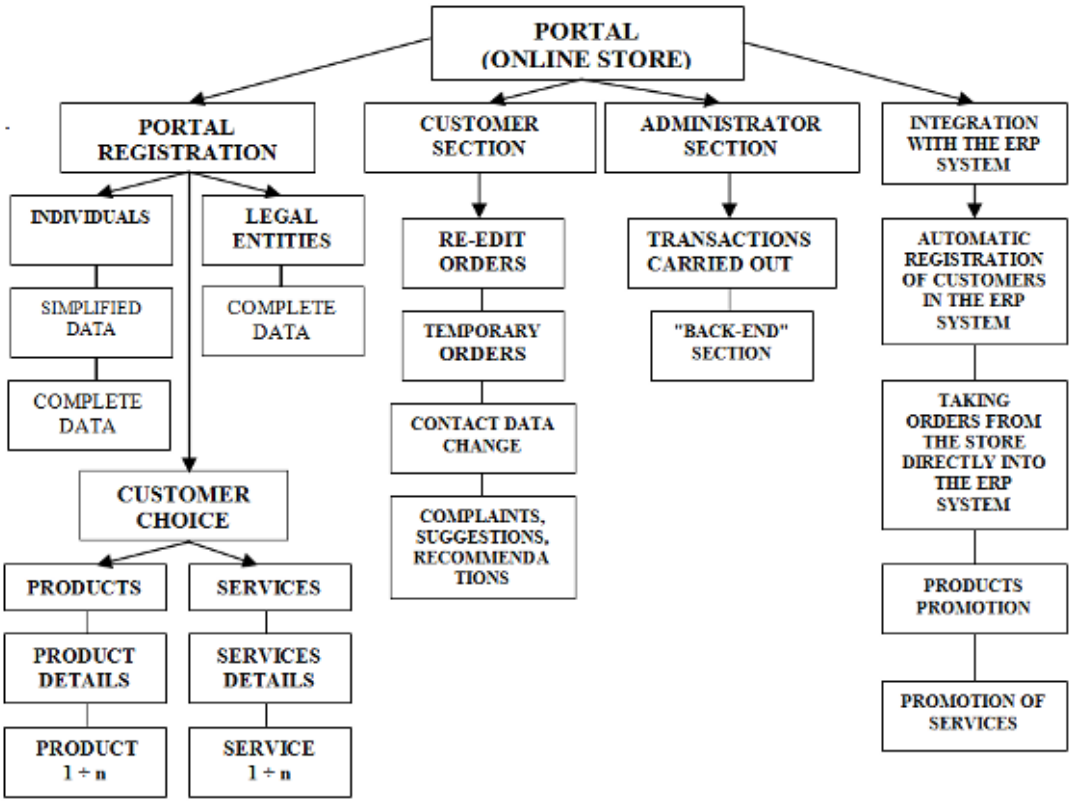
- Managerial. From a managerial point of view, it is very important: the administration of the site, its permanent access, in the section reserved for administrators, in order to follow the evolution of sales, the situation of customers, the most valuable customers, who buy the largest quantities or products. expensive.

- Logistics. Often companies neglect aspects related to logistics, supply chains, both from suppliers and especially to customers. An online portal or store, in addition to the aspects related to products, their qualities and prices, must organize very well the aspects related to logistics: storage in appropriate conditions, fast transport, arrival on time and in good condition, to customers. Basically, without proper logistics, an online store cannot be successful, it cannot retain its customers.

- Making payments. The managers of this type of business, before opening the portal or the online store, must fine-tune, very well, the process of making payments, for the transactions that will take place through the internet. The easiest form of payment is the one through which the customer directly transfers the money from his bank account, from the computer or phone, to the store account. Two situations arise in connection with this procedure: the first is given by the possibility for a hacker to buy the products and make payments from other accounts than his own; the second is related to the customer's guarantee that after making the payment, he will receive the product, because a series of online stores have appeared, which "clone" other stores or which collect the money, but do not send the products to the destination. In addition to the risks related to customers, there is also the risk of breaking accounts and entering the portal network. Another form of payment, used by customers less familiar with the Internet, is the payment of the product at the destination. Currently it is much safer for customers, but presents some risks for the store. That at the destination, the customer is not found and the product is returned to the warehouse, and the cost of transport is borne by the store.

- Marketing. This must be in the attention of managers, because the neglect of marketing aspects, from product presentation, to the promotion of the portal itself, is very important. The introduction of the portal in search engines and social networks are aspects that must not be neglected, that must be constantly monitored, because the ease with which the product or service is found on the Internet depends on the business itself. If the product is easily found and its price is competitive, it can be considered that a customer will be interested in it and become a potential buyer. Promoting special offers, discounts, rebates, price reductions for several products purchased, is very, very important and is an important way to attract customers.

Taking into account all these aspects, with the help of specialized programs, it is possible to make predictions related to customer needs, the volume of demand, the range of products, the evolution of prices, in order to respond as well as possible to their requests.



5. Conclusions

The conclusions related to the use of this modern type of trade are systematized and presented in table 2.

Table no. 2. Management decisions and effects on the use of electronic commerce

No	MANAGEMENT DECISIONS	EFFECTS AND EXPECTED ECONOMIC RESULTS
1.	Develop a coherent strategy to achieve e-commerce.	- The strategy must be realistic, to avoid wasting time, resources and people.
2.	Creating a business plan for setting up the portal or store, taking into account: - Coherent investment plan, based on securing financing resources. - Development of marketing tactics aimed at potential customers.	- The plan must be developed in detail, based on accurate information obtained from the market. - The initial investment is very large, requires consistent and available financial funds. - Searching for market segments that are not covered by competition. - Without promotion, many potential customers may not realize that there is an "online" business. - If the products or services that the company offers have exceeded the growth period, within their life cycle, it is possible that through the portal or store, nothing will be sold or sales will be very low, because there is no interest for the product or service launched via the Internet. - There is a very strong competition in the market, consolidated and without competitors. This is a difficult obstacle to overcome.

3.	Creating a distribution channel for the portal or store, which will immediately respond to customer requirements.	- Without establishing partnerships with production and transport companies, based on stable contracts, it is not possible to start an e-commerce business. - The problem of large quantities or orders required in the same period of time must be calculated and solved. - Carrying out reverse logistics, for products that have defects or are defective within their validity period.
4.	Ongoing tracking of customer benefits by: - Convenience to find and request the desired product or service. - Offering multiple options, according to the rule "the customer has a choice!". - The quality of the products must be that resulting from the product information, and the warranty terms must be very clear. - The information they are looking for is very easy to find. - The requested product or products, arrive in the established time, for the areas where the customers are, at the established dates and times. - Customize the page to eliminate confusion.	- The flawless operation of the site, when it is accessed by a large number of customers at the same time. - Simplifying the way of filling in the forms, sending or receiving electronic messages by email or telephone. The problem of telephone communications with customers is a very important one, and the company must adopt a series of measures to have permanent operators who answer the phone and inform customers correctly.
5.	Full involvement of managers and staff that will be responsible for the portal or store.	- Managers Focus the efforts on the essentials of the business. This is an essential requirement that managers must keep in mind from the start of the business.

Source: author's study.

Even if launching and maintaining an "online" business is difficult, with many organizational, legal and financial impediments, they still have a number of advantages for companies that invest and launch them in the public space. Among the most important are:

- Attracting new customers, through a new distribution channel, made through the internet.
- Increase sales to existing customers.
- Emergence and development of sales on demand.
- Reduction of operating expenses and inventory of products and stocks.

Due to the fact that internet access has become very easy, for a very large number of people, the results of using a portal or store can be remarkable. It is very important that this kind of market currently plays a special role, as an interface between two or more supply chains, which over time will consolidate and develop, but will eliminate inefficient companies from the market.

The investment and confidence in the development of this field, which is part of the general market trend, of permanent adaptation to customer needs, compliance with rules and laws, imposed by crisis situations, is in itself a great challenge for managers. Success belongs to those who have the courage and innovative ideas!

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The Organizational Culture Roles and Significance within Rail Companies

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Abstract

Management culture plays a vital role within organizational culture, channalizing the promotion of certain values and conduct, which serve for the company's objectives and achieved through human resources management instruments. In rail transportation, the concept of organizational culture is highly exhaustive, partially invisible and very difficult to measure. Therefore, any intervention on said culture starts with a diagnosis in its regard, being useful in collecting data on the analyzed organization progress. Such is the purpose of this work, further used to analyze the ascension of theoretical preoccupations and practical approaches on the organizational culture in the state-owned rail companies, the new vision being subsequently echoed over the human resources within modern companies and the new type of management involved

Key words: organizational culture, rail transport, leadership
J.E.L. classification: M12, L92

1. Introduction

Within the international companies, the national culture through its dimensions strongly influences the success of the multiple management models used. In one country employees get motivated by team work while in another by working alone; in this case the culture impacts the motivation system. In Romania, studying the organizational culture is in an incipient stage. Research results at the companies' level in our country correspond to the transitional state, which put their mark on mentalities, values, attitudes, yet are important through their compliance with the theories included in the international specialty literature as there are culture profiles which are already sketched out based on real authentic situations in Romanian organizations, profiles with which corresponding management types get associated. Organizational culture in rail transport is a very contemporary field, given the fact that rail transport worldwide is under a permanent modernization and adjustment to the requirements of a modern, fast and safe movement of people and goods. The integration of Romania into the European Union has imposed and still imposes new requirements both in terms of technological management and also human resources management.

To improve its overall performance, any company must react to the evolution of all human resources-related aspects and acknowledge their importance. The research in this paper falls under this logic and contributes to the enrichment of information on human resources management and new types of leadership in rail transport. Through human resources management, the organization's management system ensures the most accurate present and future measurement of both economic and managerial performance. The studies performed highlight the best practices in regard to the management activities in the railway transport and the best optimization and competitive development solutions in the railway sector by integrating human resources management in the priorities of the railway management issues.

2. Literature review

A traditional definition separates the organizational culture in objective culture and subjective culture (Radu, 2003, p. 122). The former refers to the material aspects, products and facts created by an organization to display its personality or identity, while the second, fundamental, encompasses all belief systems and major hypotheses, which shared by all members of an organization allows them to co-work. Organizational culture through its scope and implications go beyond the strict field of the organizational management. Basically, all processes in the organization regardless of their managing, economic, technical or legal nature are perceptively influenced by the national culture in relation with the content and development methods. Recent studies showed that Romania has similar values with other Balcan countries, such as: huge reserve towards authorities, collectivism, low degree of individuality, high degree of avoiding uncertainties and short-term orientation (State, Popescu, 2008, p.73).

There is great diversity of opinions in regard to describing elements forming the organizational structure. Most authors confess that it consists of more sorts of components, which are not at the same degree of visibility, influence and understanding. The approach of a French expert presents the organizational culture as composed by the following: foundational elements and circumstances around which it was generated; history, occupation, values, signs, beliefs and symbols (Thevenet, 2016, p.54).

In the specialty literature there are some authors who consider that leadership styles coincide with the managerial styles. Still, there are other authors who specify that leadership styles are organically related to the managerial styles they overlap to an appreciable extent, but which simultaneously present certain specific elements. Professor Ovidiu Nicolescu who is also part of this last category, developed a typology of new leadership styles according to several criteria (Nicolescu, 2018, 385).

3. Research methodology

The scientific rigor necessary to describe the methodology of socio-human research requires the clarification of the concepts used. In order to evaluate the prospective requirements regarding the organizational culture influence on human resources management activities and to maintain a satisfactory organizational climate, an exploratory and explanatory study was carried out within the "CFR" Constanta Branch, which identified railway staff options regarding the potential threats that the branch management could have faced, in the conditions of personnel restructuring already communicated.

Summarizing the research issue was achieved by applying the following *hypotheses*:

- the human resources policy developed by the management of the railway company is deficient when it comes to work relationships improvement;
- the remuneration and reward system targetting human resources in the state railway transport is inflexible and rigid;

The hypotheses testing, preliminary analysis of the organizational climate and work relations within the "CREIR CF" Constanta Branch of CFR SA National Company, were conducted by means of a questionnaire and the method of direct observation during August and September 2020, of both employees with execution functions in all railway stations on the Constanta - Mangalia segment, and part of the managers from the central management apparatus of the branch.

The questions in the questionnaire followed **two areas** of further examination:

- the existing work climate within the social group in the stations and regional center;
- the importance of communication in organizing the work process;

The analysis of the survey data was carried out between October 1st and 31st, 2020. Out of the 230 questionnaires handed out, 210 questionnaires were collected. The study was conducted on a representative sample of 210 employees of the "CREIR CF" Constanta Branch, consisting of 150 people equaling 94.7% of all staff in the Constanta-Mangalia traffic department and 60 people, representing 30% of employees with management positions from the central apparatus of the branch.

In order to gather additional information and clarify some questions that the respondents could not answer due to the limited nature of the questionnaire, the unofficial interview was used only for the management staff at the branch office. The informal interview gave the operator the freedom to reorder the questions, explain their meaning, add additional questions and even adapt the wording to the circumstances and person to whom it was addressed.

The diagnosis of the socio-professional climate as a result of analyzing the data obtained from the interpretation of the questionnaire results followed the collection of general information and stressed the positive or dysfunctional aspects related to work organization, interpersonal relationships, leadership styles, motivation system in the railway company. The interpretation of the results was achieved by ranking the items in the questionnaire, based on the frequency of answers and by reporting global impressions on the reactions to the questions asked, in the case of interviews.

During the meetings with the heads of departments and the regional director, the recommendations offered were validated as suggestions to improve the activity in the field where a major issue was found.

4. Organizational culture influence on human resources management activities

Organizational culture allowed the identification and description of numerous real elements of human nature within the organization's life with major implications over the integrated activities development and results, which were not considered through classic management approaches; moreover, its nature implies a very concrete human-management approach which has in view all employees in the organization. That is why, knowing the organizational culture functions lay the foundation for noticing and capitalizing on the essential importance it conveys for each organization, regardless of its profile, size, economic potential or belonging to a certain national culture. At the organization level, the intervention on the culture is conducted via the main human resources management elements: foreknowledge on the staff structure, career promotion and administration, human resources management principles and systems.

Foreknowledge on the staff structure is of strategic importance and indispensable even though it refers to an internal promotion, because the employees remain loyal to a company where they know they have promotion chances. Estimation of the required human resources is done in relation with the strategic and cultural needs, but also according to the professional performances of the existing personnel. The influence of the organizational culture on the recruitment and selection activities demonstrate in the form of the advantage gained by the organization from internal recruitment, those selected from within an organization being already familiar with the culture of said company become motivated at the idea of getting preofessionaly promoted.

Through selection of human resources appropriate to its own culture, the organization sets the foundation for its future in this respect being difficult to right already committed wrongs. The selection does not allow only for the technical skills, but also for the person's mood and character, which needs to be open and realistic towards the organization's culture and mentality. In relation to *personnel integration*, first experiences in a company make an impression on every new collaborator. Receiving employees in an organization is achieved at informal level – values, reactions and behaviors they observe, and formally – by presenting the group they will collaborate with.

The influence of the organizational culture on the personnel promotion and career management is major when employees wish to leave the organization due to a lack of possibilities to hone their skills or get promoted. The changes arisen during the activity, namely: project management, jobs rotation, delegation of additional responsabilities, competence development or trainings abroad translate into continuous training possibilities, achieved according to the organization's strategy and culture.

Employees motivation theories and applied practices to motivate human resources are related to the individualism-collectivism dimension. The dominant theme in the American culture of the last 20 years is that employees get fundamentally motivated by the desire to be successful, therefore they are challenged by their managers by diversification in their activity when they fail to show deeper involvement in the activities unfolded.

One of the HRM actions most susceptible to cultural influence is *performance assessment* most often than not attracting the employees' resentments if such influence is ignored. Organizational culture study has become greater proportionally with the transnational societies emergence, going from general management to international and then global management. Along with the continous expansion of global organization, the demand in experienced international managers increased and hiring the right foreign managers and potential managers became an important task for the human resources management.

5. Practical considerations on the organizational culture in the rail transport sector

Within rail companies in Romania, cultures display certain specific traits, considering that a significant percentage of professions impose a special technical expertise (Daneci-Patrau, D., 2019, p.103):

- The values are directed towards maximizing the degree of meeting client's needs, whether it is freight or passenger transport.
- The behavior of the commercial railway worker complies with his position as a contact person with the client, especially during the journey.
- Direct control of employees by managers at the level of basic subunits - railway stations, traffic regulators, wagon revisions - by meeting standards, rules and procedures envisioning train traffic and goods and passengers safety.
- The departments are organized as to allow an easy, fast and efficient intercommunication.
- Salaries are low, so it is necessary to activate other motivational factors: working atmosphere, working conditions offered, awards and incentive rewards.

The history of the Romanian railway companies is not particularly related to their founder or managers such as it occurs in the large international companies; the history is not correlated with the company's management, but rather with its results - what category of travelers it attracted, the type of infrastructure it has, the traveling conditions. The directors of the three public railway, freight, passenger and infrastructure companies, as well as the regional directors are appointed in positions mainly based on political criteria, which makes the personalization of each company, which was conveyed by staff and especially management, to fragment continuously. This aspect is also confirmed by the migration of experienced rail personnel, who is familiar with the cultural values of the organization, to the private railway transport operators or to the BPO-type of companies created. Strong cultures often have a degree of rigidity and inflexibility and are threatened by the loss of sensitivity to internal or external changes, which endangers the smooth running of the organization.

However, it takes time, trust and perseverance to change a bureaucratic Romanian railway company, protected and isolated by its customers into a flexible and available company. No transformation program solves anything if not accompanied by structural changes. More often than not, it takes a lot of courage to enforce drastic personal and organizational measures related to change. Sometimes a management close to the human resources of the company is beneficial, hence cultural cells being able to stimulate the desired change form at the lower hierarchical levels. The entire process of intervention on culture is supported by a behavior in accordance with the desired culture and rewarding those abiding by it, although it is true that many leaders of the railway subunits fail to manipulate symbolic actions and indirect means. It is also essential to periodically redefine position, note the changes occurred and possibly spur new impetus. As it is impossible for a manager to objectively analyze the culture of their own organization, it is preferable that this be done by outside specialists.

The culture of the railway organization becomes a support for the decision-makers' orienting when new organizational strategies changes are foreseen, such as the railway transport restructuring and reorganization measures, initiated in 1998 and continued thus far. The cultural context, essential for management and employees during normal business, becomes unstable and creates a sense of insecurity in times of personnel sacking. As in most organizations, the effects the organizational culture has within railway companies are not directly quantifiable, but they do create a framework for improving productivity.

6. New types of leadership applied within rail companies

A first classification establishes, according to the managerial and psychological characteristics involved, three leadership styles:

- Autocratic, characterized by a strict supervision of subordinates by the boss, information flowing mainly downwards, fear acting as a means of control.
- Liberal, through which, within some general action directions established by the superior management, subordinates are given great freedom of action, control being almost null.
- Democratic, whose main dimensions are sociability, flexibility, cooperation, smooth upward, downward and horizontal communication, the spirit of openness and friendly atmosphere in the organization.

Being consistent with the leadership and managerial style characteristics presented and adopting the conclusions of the latest studies in the field, out of the three styles, only the latter, the democratic one we consider both a managerial and leadership style.

Characteristic for the railway companies is that, between the employees, the collaboration relations at a professional level are relations of administrative hierarchy and operative subordination. Within the relations of administrative hierarchy, each employee is directly subordinated to a single hierarchical supervisor who establishes responsabilities. The other managers, hierarchically higher in ranks, can also communicate orders directly, but in this case, the receiver of the order is obliged to inform his manager directly.

Regarding the type of manager and leadership style existing within the group of railway organizations, based on the results obtained in the research of the labor relations and social climate analysis, undertaken on two distinct and representative groups of the employees pertaining to the "CFR" Constanţa branch, the following types were identified (Ipate et.al, 2009, 155):

- In three of the nine railway stations, the existence of an *autocratic management style* was identified, which imposed a *structured* climate, characterized by a severe control of the direct manager; station chiefs demand punctuality, order and superior efficiency; employees perceive the manager as cold, distant, unapproachable; therefore, they fear their superior.
- In the other six stations of the traffic section, the existence of the *permissive climate* was identified, characterized by a style that allows freedom of action; the superior manager of the unit, respectively the station head does not intervene directly in the railway infrastructure operating activity, rarely controls and imposes restrictions.
- Within the group in the central management structure of the branch, the style identified was *democratic*, through which the manager allows the subordinates to express their opinion in connection with the office or job activities; everyone is involved, the head is the leader and all together a member of the group; this creates team spirit.

Establishing such a climate is the goal of most modern managers. A democratic climate is one where employees want to achieve what the manager wants done.

Due to the railway transport activity specificity, the employees of the railway companies concur directly for the safe train traffic, thus they have to prove high discipline, based on the necessity of tasks fulfilling. In the railway transport system, the discipline implies the subordination of each person employed to the hierarchical leaders and requires strict fulfilling and execution of the direct hierarchical superior's orders, of the specific norms established by railway instructions and regulations.

Given the management style practiced in the railway transport activity, we consider the preservation of the permissive climate a threat to the future activity, this liberal climate becoming dangerous, especially for new inexperienced employees who need discipline. From the survey and direct observation used in the research, we found that the railway staff does not make an efficient use of their working hours and find almost zero motivation to perform tasks specific to the job description, when a leader is missing.

Among the new types of leadership, in the analyzed railway branch a frequently practiced interpersonal leadership was identified. It is characterized by direct relations between the manager and subordinates on a daily basis, especially in the railway subunits in the territory, and in the central management team - the charismatic leadership, practiced by the regional director, who is young and has lead the office for the last eight years and achieved success by using unconventional

problem-solving solutions.

In the railway transport system, the leaders of the trade unions and the managers of the railway companies face more problems that need effective and efficient solutions, but which also generate critical adverse reactions. Massive staff cuts, business restructuring by giving up some traditional operations and the development of new ones, which require other skills and abilities, have proven to be unpopular, generating union movements or adverse reactions from their own staff. In response to these situations, the railway transport management is oriented towards the adoption of new leadership styles that will lead to the increase in the degree of employees' involvement in solving major issues. However, the implementation of these new measures entails a certain adjustment period and the existence of a high assumption potential from the railway managers.

7. Conclusions

Organizational culture is an intrinsic side of modern approaches to human resource management. In fact, the rise of theoretical concerns and rational approaches to organizational culture reflects the new vision of human resources in modern business and the new type of management involved. Understanding the content of high performance, however, varies from culture to culture. These contrasts between companies, related to human resource management roles prevent the development of a consistent approach to the human resources use in a global organization.

Awareness of the organizational culture functions is the basis for noticing and capitalizing on the major importance it has for an organization. The significance of the railway culture for a railway transport company, in the context of promoting the professional human resources management, is also given by the approach of the organizational culture in all its complexity. This specific approach facilitates the identification and fighting of illicit organizational conduct, sadly, with relatively high prevalence in railway companies, due to the specificity of the activity;

The culture of the organization tends to be included more often in the study of railway transport companies and become a new variable of their management. In order for organizations to further succeed, we consider in this field necessary to use direct methods, especially strategies and structures adapted to the market, but also indirect methods, which influence behaviors, especially the railway culture systematic enhancement.

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The Evolution of Seaside Tourism in the First Tourist Season of the COVID-19 Pandemic: The Situation of the Romanian Black Sea Resorts

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Abstract

Tourism and travel were among the most affected sectors of the economy in 2020, due to the measures taken to prevent the spread of COVID-19, including the restriction of movement of people.

Tourism in Romania was also severely affected by this crisis, especially the inbound tourism, but the tourism in the coastal area had, in the first 9 months of 2020, a better evolution than in other tourist areas of the country and compared to other EU countries, based on domestic tourism, since inbound tourism collapsed.

The main objectives and goals of the research are the analysis of the evolution of the tourist season in the seaside resorts, in 2020, and to highlight some mistakes that, if avoided in the future, there is a great chance for much better results in the summer tourist season of 2021. The mistakes were made by the state authorities rather than the tour operators.

Key words: coastal tourism Romania, COVID-19 impact, extension of the beaches, unjustified restrictions, adaptation of the tourist offer
J.E.L. classification: Z31, Z33, Z38, Z39, Q58, R11

1. Introduction

The lives of billions of people on the entire planet Earth were endangered in 2020 by the spread of the COVID-19 pandemic. The governments of the world's states were taken by surprise, unable to promptly and adequately respond to this threat from an "invisible enemy" for which there was no vaccine or treatment known to be effective against the disease. Romania was even less prepared than other European countries, in terms of its health system, which was chronically underfunded for long periods of time, without the necessary equipment to treat the infected patients (especially in terms of the very small number of beds in the Intensive Care Units) and with a significant shortage of medical staff.

The first case of COVID-19 infection in Romania was recorded on February 26, 2020. Then, the pandemic spread rapidly throughout the country, with about a third of the cases detected in the cities of Suceava and Bucharest (OECD, 2020, p.291). Inevitably, traffic restrictions and the quarantine followed.

Since the spread of the cases reached alarming levels, worldwide, measures to quarantine the population at home or in specialized units, to restrict the movement of the people, even an almost complete closure of the borders were needed, and many economic activities were either restricted or a total closure of their activity was ordered.

Romania has also been severely affected by this serious health crisis, especially with regard to receiver (inbound) tourism, while decreases in tourism flows were more moderate, so that, in total, the decreases in the total number of tourist arrivals were smaller than in other European countries.

Tourism in Romania recorded significant losses, but, in the coastal area, the evolutions were better than those recorded at the level of the entire country, for the first 3 quarters of 2020, based on internal (domestic) tourism, while receiver (inbound tourism) collapsed.

2. Literature review

As expected, given the unprecedented scale of the global hospitality crisis, a large number of authors researched this phenomenon and published papers on the impact of the COVID-19 pandemic on economies, at global, regional, national or zonal level, and in particular on travel and tourism.

Numerous papers analyze the evolution of the main indicators which measure tourist traffic, globally or nationally, due to the impact of the pandemic, tackling issues such as the evolution of tourism demand, how the tourist offer has had to adapt, in the hotel industry, restaurants, passenger air transport, the cruise industry, but also in terms of the employment in the hospitality industry.

Another category of papers compares the COVID-19 pandemic with other previous health crises (such as those related to: malaria, yellow fever, Ebola, Zika, MERS-CoV, SARS, bird flu-H5N1, swine flu, etc.) (Menegaki, 2020).

A particularly interesting and useful paper displays the analysis of 175 published articles, with a relevant content, identified using Google Scholar, Web of Science and Science Direct Databases and which were classified into 6 groups: (1) articles which performed simulations and scenario modeling (2) those on the impact of the COVID-19 pandemic, (3) those comparing the COVID-19 pandemic with other previous health crises, (4) those measuring the impact of COVID-19 in economic terms, 5) those regarding the resumption of activities in the post-pandemic period and (6) those related to conducting surveys (Davahli *et al*., 2020).

In the absence of a vaccine to prevent getting the disease and in the context of a limited capacity of the medical system to treat this disease, the various forms of nonpharmaceutical interventions (NPIs) are particularly important, including lockdown measures (home isolation, voluntary or imposed quarantine), maintaining the physical distancing between people and limiting the number of persons who are together, in the same place, the closure of schools and / or universities and non-essential economic activities, the cancellation or postponement of events (cultural, sports) and of public meetings with a certain number of people (Gösling *et al*., 2020, p.2). However, such measures, along with closing the borders or limiting the right to travel, drastically restrict tourist traffic.

The main barrier against the rebound of international tourism, according to UNWTO experts, continues to be the travel restrictions, along with a slow virus containment and low consumer confidence. Other obstacles identified by experts were the lack of a coordinated response from the world's states so as to ensure harmonized protocols and coordinated restrictions, as well as the deterioration of the economic environment (UNWTO, 2020b).

3. Research methodology

In this paper we have conducted a descriptive research on the evolution of the tourism activity on the Romanian coast during the coronavirus pandemic. For a part of the research we have used secondary, quantitative information, using a longitudinal profile (Jugănaru.1998, p.25), represented by the values of the main indicators of the tourist circulation in the coastal area of Romania. Thus, we have performed a comparative analysis of the evolution of the selected indicators (number of arrivals and number of overnight stays of residents and non-residents) during the first 9 months of 2020 and the similar period in 2019, by resorts and tourist localities. Furthermore, we have compared these developments with those recorded, in the same period, at the level of the entire country (Romania), but also at the level of the 27 EU countries.

Another part of the research has been conducted using the "focus group" method (Jupp, 2010, pp. 207-208) and is based on qualitative, direct information obtained from the discussions we had, during this analyzed period, with over 20 managers and entrepreneurs of tourist reception structures with accommodation, food and leisure functions, from the tourist resorts on the Romanian coast.

4. Findings

The travel restrictions imposed in response to the evolution of the COVID-19 pandemic hit world tourism hard in 2020.

4.1. Evolutions of international tourism in 2020

International tourism fell by 70% due to the impact of travel restrictions in all the regions, according to the World Tourism Organization's press release of October 27, 2020, analyzing the developments of the first 8 months of the year (UNWTO, October 27, 2020). At the end of October 2020, UNWTO's expectations were that, for the entire 2020, there would be a 70% decrease in the number of international tourist arrivals compared to 2019 (UNWTO, 2020b). UNWTO's expert panel predicts a bounce back of international tourism only in the third quarter of 2021, and some of them expect this to happen only in 2022.

According to UNWTO's World Tourism Barometer, the number of international tourist arrivals fell by 81% in July and by 79% in August, the two peak months for tourism in the northern hemisphere summer season. The fall recorded in August represents 700 million fewer arrivals, compared to the same period in 2019, which translates into a loss of 730 billion USD in export revenues - in international tourism, i.e., more than 8 times the loss recorded after the global economic and financial crisis of 2019 (UNWTO, 2020a).

Europe recorded a more moderate decline in July and August (-72% and -69%, respectively), but the rebound was short-lived, with new travel restrictions being reintroduced, following the increase in the number of COVID-19 infections.

According to EUROSTAT data, between January and September 2020, compared to the same period in 2019, the number of overnight stays in EU countries' accommodation units decreased from 2.4 million to 1.2 million (-49%) (EUROSTAT, 2020). During this period, all EU Member States recorded significant decreases. The most affected EU countries were Greece, Malta, Spain, where the number of overnight stays fell by at least 67%. In Romania, the decrease was 49.5% in terms of tourist accommodation establishments and 51% - hotels and similar accommodation.

4.2. Summer tourist season in 2020 in the EU countries

In January and February 2020 there were significant increases in the number of overnight stays, by 4.4% and 5.7%, respectively, compared to similar provisions in 2019. However, March 2020 marked the start of the lockdown measures and the introduction of travel restrictions in most EU countries, and the decrease in the number of overnight stays compared to March 2019 was 63%. The decline continued and intensified in April (a 95% decrease compared to April 2019). Then a slight rebound began, in May, which continued in June 2020. However, in May and June, the worst results were recorded in terms of the number of overnight stays, compared to the same period of the previous year (- 88% and -71%, respectively).

Between July and September 2020, there was a 38% decrease in the number of overnight stays in tourist accommodation units in EU27 countries, compared to the similar period in 2019, with decreases of 42% in July, 32% in August and 41% in September.

One can note that 5 EU member states recorded decreases of at least 50% in the number of overnight stays in tourist accommodation units: Malta, Greece, Spain, Portugal and Bulgaria. We can also see that all these countries have a tourist offer based mainly on coastal tourism.

Comparing the results recorded by Romania with those of Bulgaria, a neighboring country with a similar tourist offer structure, we note that, regarding the number of overnight stays in July-September 2020, compared to the same period in 2019, the decreases recorded in Romania were lower than those in Bulgaria (-37.6% in Romania, compared to -50.8% in Bulgaria). These decreases were recorded each month, from July to September, respectively decreases of 44.7%, in July, in Romania, compared to 61.9%, in Bulgaria, of 31.9%, compared to 44.7% in August and 32.3% compared to 42.3% in September (Eurostat, 2020). The explanation for these differences can lie in the much higher number of overnight stays of foreign tourists in 2019 in Bulgaria, compared to Romania, while the travel restrictions for non-resident tourists imposed in the summer of 2020 led to more pronounced decreases in the non-resident tourist flows in Bulgaria.

Analyzing the evolution of the number of overnight stays of EU residents in their own countries (domestic tourism), we note that while residents of Malta and Slovenia recorded more than double the number of overnight stays in domestic tourism in 2020 compared to 2019, other countries (Greece, Spain, and Romania) recorded the largest decreases in this indicator (-29% or more).

On the other hand, the most severe decreases in the number of overnight stays of non-residents were recorded in the third quarter of 2020, compared to the similar period of 2019, in Romania, Spain, Finland and Sweden (Eurostat, 2020, p.7).

4.3. Evolution in the Romanian coastal area

Table no. 1 Evolution of tourist arrivals in the Romanian coastal area, January-September, 2019-2020

City or resort	Tourist arrivals								
	Total		20/19 %	Romanians		20/19 %	Foreigners		20/19 %
	'19	'20		'19	'20		'19	'20	
Coastal	**129,378,3**	**964,710**	**-25.43**	**1,238,401**	**954,080**	**-22.96**	**55,382**	**10,630**	**-80.81**
Constanţa	173,431	77,826	**-55.13**	149,109	72,646	-51.28	24,322	5,180	**-78.70**
Mamaia	394,902	294,233	**-25.49**	377,383	290,456	-23.03	17,519	3,777	**-78.44**
Eforie Sud	298,88	18,306	**-38.75**	29,789	18,288	-38.61	99	18	**-81.82**
Eforie Nord	177,359	131,112	**-26.08**	172,139	130,580	-24.14	5,220	532	**-8.,81**
Mangalia	197,32	13,458	**-31.80**	18,769	13,223	-29.55	963	235	**-75.60**
Năvodari	269,55	22,135	**-17.88**	25,117	21,852	-13.00	1,838	283	**-84.60**
Mamaia Sat	57,852	53,527	**-7.48**	55,889	53,218	4.78	1,963	309	**-84.26**
Techirghiol	9,013	5,886	**-34.69**	8,895	5,858	-34.14	118	28	**-76.27**
2 Mai	6,422	3,105	**-51.65**	6,407	3,105	-51.54	15	-	**n/a**
Vama Veche	13,519	12,496	**-7.57**	13,257	12,476	5.89	262	20	**-92.37**
Costineşti	55,113	29,186	**-47.04**	54,572	29,128	-46,62	541	58	**-89.28**
Schitu	3,489	663	**-81.00**	3,448	663	-80.77	41	-	**n/a**
Olimp	2,5779	41,489	**60.94**	25,574	41,489	62.23	205	-	**n/a**
Neptun	75,949	107,202	**41.15**	75,144	107,117	42.55	805	85	**-89,44**
Jupiter	41,614	33,219	**-20.17**	41,466	33,192	-19.95	148	27	**-81.76**
Cap Aurora	33,282	18,173	**-45.40**	33,175	18,148	-45.30	107	25	**-76.64**
Venus	85,828	59,460	**-30.72**	84,681	59,429	-29.82	1,147	31	**-97.30**
Saturn	63,656	43,234	**-32.08**	63,587	43,212	-32.04	69	22	**-68.12**

Source: Data processed by the author, data provided by Constanța County Department of Statistics, 2020

Analyzing the comparative situation of the number of tourist arrivals on the Romanian coast, in the first 9 months of 2020, compared to the similar period of 2019, we can observe the following developments:

- A decrease by 25.43% of the total number of tourists, in the period January-September of the year 2020, compared to the same period of 2019, at the level of the entire coastal area, of which:
  - A decrease by 22.96% in the number of arrivals of Romanian tourists;
  - A dramatic decrease, by 80.81%, in the number of arrivals of foreign tourists.
- From the analysis of each resort and tourist locality on the Romanian coast, it results that the most severe decrease was recorded in Schitu localities - belonging to Costinești commune (-81%), followed by Constanța city (-55.13%), 2 Mai locality (-51.65%), Costinești resort (-44.04%) and Cap Aurora resort (-45.4%).
- Decreasing the average length of stay, from 4.07 days in 2019 to 3.64 days in 2020 (Constanța County Directorate of Statistics).

There were also tourist resorts, respectively coastal localities where the decrease in the values of this indicator was much smaller, as is the case of Vama Veche localities (-7.57%) and Mamaia Sat - Năvodari resort (-7.48%). On the other hand, there were tourist resorts which recorded increases in the number of tourist arrivals: Olimp resort (+ 60.94%), respectively Neptun (+ 41.15%). In the structure, by categories of tourists, depending on their origin, we notice that the largest decrease in

the number of Romanian tourists was recorded in Schitu – Costinești, where the decrease was 80.77%, followed by 2 Mai locality (-51.54%), the city of Constanța (-51.28%), the Costinești resort (-46.62%) and Cap Aurora resort (-45.30%). On the opposite side, two tourist resorts even recorded increases in the number of Romanian tourists: Olimp (+ 62.23%) and Neptun (+ 42.55%). The explanation lies in the fact that extensive repairs and modernizations of some hotels were carried out in these resorts, which were re-opened in 2020.

Regarding the arrivals of foreign tourists, the most important decrease was recorded in the coastal localities 2 Mai and Schitu, where no foreign tourists stayed, and in all the other resorts and coastal localities very large decreases were recorded, the most severe being in Venus (-97.3%), Vama Veche locality (-92.37%), Eforie Nord (-89.81%) and Neptun (-89.44%) resorts, followed by Costinești (-89.28%), Năvodari (-84.6%) and Mamaia Sat (-84.28%). The smallest decreases in the number of foreign tourists were recorded in Mangalia (-75.6%), Techirghiol (-76.27%) and Cap Aurora (-76.64%). A thorough analysis of the causes for these differences in evolution is necessary, from one resort or locality to another, in view of adopting the most appropriate measures in the 2021 season.

Figure no. 1 and table no. 2 show the comparative evolutions of the number of tourist arrivals, at national level, in Romania and in the coastal area, on months, in the January-September period, in 2020, compared to 2019. One can note the much more severe amplitude of the decrease in the number of arrivals throughout the country, compared to the situation in the coastal area.

Furthermore, in figure no.2 and table no.3 the evolutions of the indicator number of overnight stays are presented, for the same period. The data of the National Institute of Statistics of Romania regarding Constanța County, within which the coastal area is located, were processed. Less than 2% of the number of tourist arrivals and overnight stays in Constanța County were recorded in other localities that do not belong to the coastal area, thus we can incorporate the data about Constanța County in the data about the coastal area.

4.4. An exceptional opportunity to increase the attractiveness of the Romanian coast – beach extension works

One of the largest projects funded by the European Union, carried out in Romania, is called "Reducing coastal erosion - Phase II", a project with a total value of over 800 million euros.

In the first phase of this project the sanding works of the beaches, in the area Mamaia - Constanța - Eforie Nord, in total 5 large beach sectors, with a cumulative length of about 7.3 km and a width of the beaches extended to over 100 m were carried out, among others. Since 2016, when the first phase of the project was completed, tourists have been able to use these beaches, whose area has increased by 60.66 hectares. The second phase of the project, which will be completed by December 30, 2023, will result in the expansion of another 11 beach areas, with an area of over 200 hectares, and the width of these beaches will also increase to 100 meters. The sanding works started in October 2020, in the Năvodari and Mamaia resorts, and from the spring of 2021 the works will start in Eforie, as well. In the second phase of the project, the beaches in the resorts and localities Costinești, Olimp, Neptun, Jupiter, Cap Aurora, Venus, Saturn, Mangalia and 2 Mai will be extended. These works will not only reduce the risk of coastal erosion, but tourists will enjoy very wide (probably the widest beaches in Europe) and modern beaches. These generous beaches will provide greater comfort to the tourists and allow physical distancing between tourists which will thus feel much safer in the pandemic context (ANAR, 2020a; 2020b).

At the same time, however, these beaches will be an ideal place for organizing and conducting cultural and artistic events (concerts, festivals), outdoors, as a much safer alternative than closed spaces. The organization of such events on the beach will be able to attract, additionally, a larger number of tourists, on the Romanian coast, in the 2021 tourist season.

4.5. Expectations regarding the 2021 summer tourist season on the Romanian coast

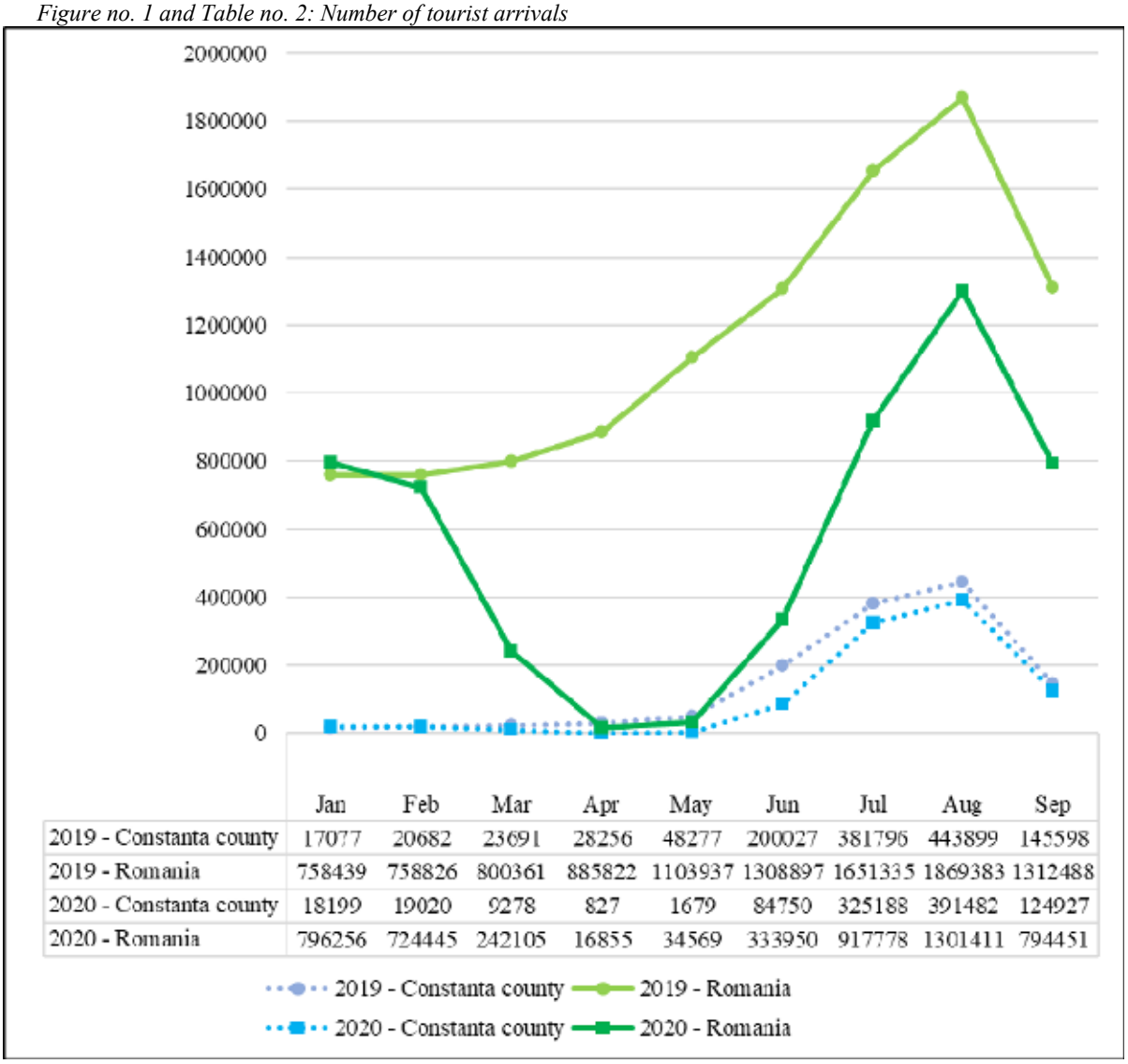
The analysis of the way the tourist activity was carried out on the Romanian coast in the summer tourism season 2020 will allow highlighting the wrong measures and avoiding their repetition in the next season.

4.6. Some mistakes which were made in the 2020 tourist season

From our own observations and following the discussions we had with over 20 managers of some tourist reception structures from several resorts and tourist localities on the Romanian coast, some interesting comments and proposals resulted, among which:

- Entrepreneurs in the hospitality industry made substantial efforts to adapt to the new conditions, investing in devices and disinfectants, protective equipment, new technologies that allow compliance with all the rules of health protection of the tourists, however, Romanian authorities did not allow serving the meal for tourists in the interior spaces of the restaurants. It is important to emphasize that, during the entire tourist season on the coast there was no outbreak of COVID-19 infection, in any unit for tourist accommodation or food, in all the localities and seaside resorts in Romania, which proves that all the necessary health protection measures were taken by these units;
- The lack of controls, by the competent authorities (Police and Gendarmerie) during the observance of the rules of distancing and wearing the face mask, led to many situations of large crowds of people on terraces, in clubs, on the beach, etc., without these violations of the rules imposed by the health authorities being sanctioned with fines, in order to discourage similar phenomena. There were controls and fines, but very few, and television stations caught numerous cases of violations of the restrictions which went unpunished. One explanation for this situation is the fact that, in 2020, in Romania there were two important elections (local and parliamentary elections), in June and early December, respectively, and the authorities did not want to impose too many sanctions on the population, having the electoral interest in mind, in order not to lose votes;
- Some tourist accommodation structures with accommodation functions, but especially some restaurants on the coast, have considerably increased either their accommodation fees, at the peak of the tourist season, or the prices of food and drinks, in some units. The managers of these units relied on the fact that there was a favorable situation, of increased tourist demand for domestic tourism, when foreign tourist destinations were inaccessible to the Romanian tourists. But the fact that such tariffs were presented in the media, respectively the unreasonably high prices practiced in some units, transmitted, among the population, the idea that everywhere on the coast accommodation and food prices increased significantly, thus discouraging domestic tourist demand;
- However, we consider that the most important loss that the Romanian seaside tourism recorded, at the beginning of the summer tourist season, 2020, is not the decrease in the activity, the number of clients and the obtained incomes, but the loss of a part of the staff, especially the qualified one. The uncertain situation regarding the date and conditions when the restaurants were to open, determined some workers, especially seasonal workers, to look for other jobs, in other fields, and even in other localities (Juganaru, 2020, p.178)
- Some tourist accommodation structures with accommodation functions, but especially some restaurants on the coast, have considerably increased either their accommodation fees, at the peak of the tourist season, or the prices of food and drinks, in some units. The managers of these units relied on the fact that there was a favorable situation, of increased tourist demand for domestic tourism, when foreign tourist destinations were inaccessible to the Romanian tourists. But the fact that such tariffs were presented in the media, respectively the unreasonably high prices practiced in some units, transmitted, among the population, the idea that everywhere on the coast accommodation and food prices increased significantly, thus discouraging domestic tourist demand;

Figure no. 1 and Table no. 2: Number of tourist arrivals



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
2019 - Constanta county	17077	20682	23691	28256	48277	200027	381796	443899	145598
2019 - Romania	758439	758826	800361	885822	1103937	1308897	1651335	1869383	1312488
2020 - Constanta county	18199	19020	9278	827	1679	84750	325188	391482	124927
2020 - Romania	796256	724445	242105	16855	34569	333950	917778	1301411	794451

Source: National Institute of Statistics, Romania, Tempo online database

- However, we consider that the most important loss that the Romanian seaside tourism recorded, at the beginning of the summer tourist season, 2020, is not the decrease in the activity, the number of clients and the obtained incomes, but the loss of a part of the staff, especially the qualified one. The uncertain situation regarding the date and conditions when the restaurants were to open, determined some workers, especially seasonal workers, to look for other jobs, in other fields, and even in other localities (Juganaru, 2020, p.178).

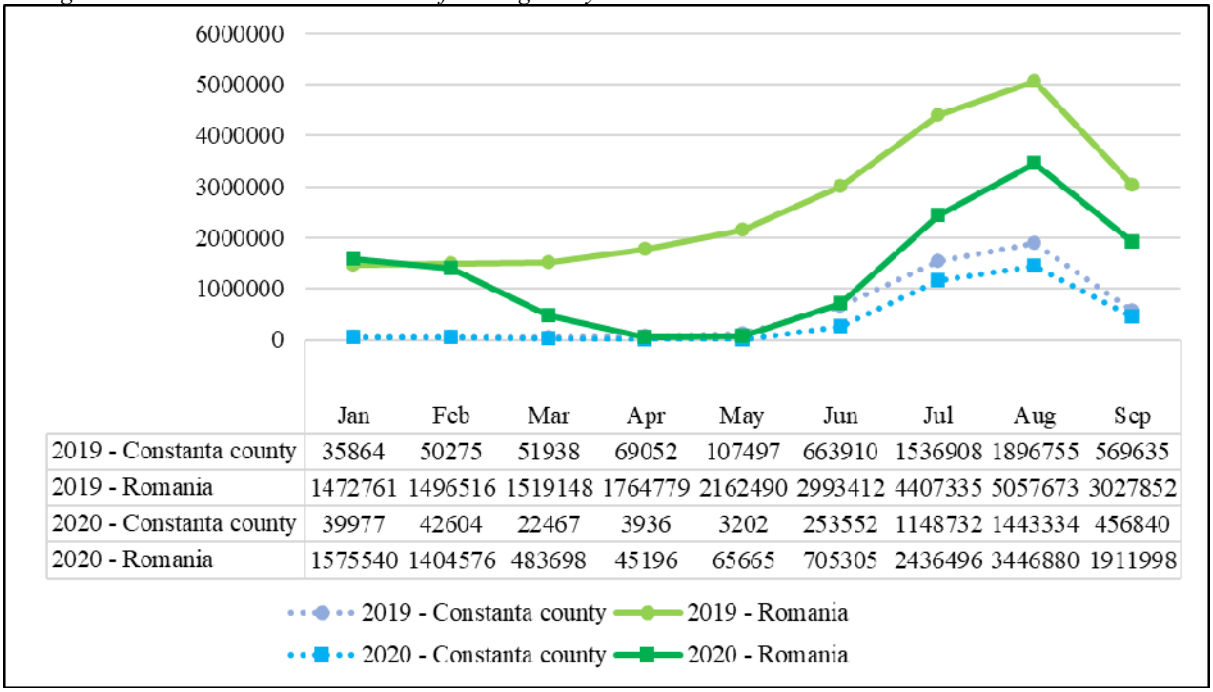
4.7. A controversial and damaging measure for Romanian tourism: restaurants were not allowed to operate indoors

Despite the insistent requests of the representatives of the employers' and professional tourism organizations in Romania, the authorities did not accept the restaurants' operation after June 1, except for serving customers in the outdoor spaces of the restaurants, popularly called "terraces". Romanian authorities have received assurances from the representatives of the hotel industry that all the hygiene rules and all the imposed conditions will be observed, including the operation of the restaurants in the interior spaces at half of the usual capacity, at the most. Unfortunately, the

response received from the Romanian Prime Minister was negative, citing a major epidemiological risk if restaurants would open. Romania thus remained, in the summer of 2020, the last EU country with this imposed restriction.

This situation was a major reason for dissatisfaction on the part of tourists, who had to wait for a long time in queues in order to be served, in successive series, on the outdoor terraces of the restaurants. But some of the hotels had very small spaces for arranging such terraces, where tourists could be served. The situation was even more unpleasant, for the tourists, on rainy and windy days (even if, fortunately, there were not many such days in the summer tourist season of 2020, on the Romanian coast). There were many tourists who brought food from home or bought it from grocery stores and ate in the hotel rooms, which caused restaurant revenues to fall dramatically.

Figure no. 2 and Table no. 3: Number of overnight stays



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
2019 - Constanta county	35864	50275	51938	69052	107497	663910	1536908	1896755	569635
2019 - Romania	1472761	1496516	1519148	1764779	2162490	2993412	4407335	5057673	3027852
2020 - Constanta county	39977	42604	22467	3936	3202	253552	1148732	1443334	456840
2020 - Romania	1575540	1404576	483698	45196	65665	705305	2436496	3446880	1911998

Source: National Institute of Statistics, Romania, Tempo online database

5. Conclusions

The summer tourist season of 2020, in Romania's coastal area, recorded significant decreases compared to previous years in terms of the number of tourist arrivals, the number of overnight stays, especially by foreign tourists and, obviously, significant decreases in revenues. However, these decreases were much smaller than those registered in the entire tourism activity in Romania and compared to those in other European countries.

The vast majority of accommodation, food and leisure units on the coast will be able to open for the 2021summer tourist season in good conditions, especially if they receive, as soon as possible, the long-promised support of the authorities (grants to cover losses of up to 20% of the decrease in the turnover of the companies, in 2020, compared to the one in 2019).

On the other hand, the state authorities will be responsible for keeping under control the evolution of the COVID-19 pandemic in Romania before the opening of the seaside tourist season. This will require stronger control measures and to sanction people who do not comply with the rules of physical distancing, wearing a mask and other health rules.

Accelerated population testing is needed, with both rapid and PCR tests, so that all the direct contacts of the people infected with COVID-19 could be identified in time, for their quarantine or hospitalization, and in order to ensure the appropriate treatments. Until then, the vaccination of the population would begin, which will have to be well organized and accompanied by a good

campaign to convince the population to be vaccinated and thus counteract the increasingly frequent appearances of "Corona-skeptics" spreading anti-vaccination messages on social networks.

Considering that in the coastal area there is the largest tourist accommodation capacity in Romania (over 25% of the accommodation units), we consider that a pilot project for the establishment of the "tourist police" would be opportune, to act in the summer on the coast, and in winter in the mountainous areas.

Moreover, the National Administration „Romanian Waters" could offer some facilities and incentives to the beach operators who set up, at their expense, toilets and modular shower units, located at the edge of the beaches, so that they meet the criteria for granting the status of "Blue Flag", which would increase the attractiveness of the Romanian beaches for the tourists, especially foreigners.

On the beaches, in the sectors which will already be expanded, it will be possible to organize several cultural, sports and leisure events, respecting the physical distancing among the participants, which would also be an additional element of attractiveness of the tourist offer.

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How to Celebrate the 115th Anniversary of the Establishment of Mamaia Resort by Using Public Relations Tools

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Abstract

Marketing communication is experiencing a permanent process of development determined by changes in people's lifestyles, changes in customer behavior, all of these generated by the remarkable evolution recorded in the field of communication technology. Organizations are reconfiguring their marketing communication strategies in order to address the stakeholders, using modern marketing techniques, able to combine customer involvement, motivation and emotions. Public relations has become an increasingly present tool in organizations' communication structure in all fields of activity, and organizing events holds a significant share. The focus on public relations and marketing events is based on their specific features, what distinguishes them from other communication techniques and gives them certain advantages for any organization. The aim of this study is to suggest the importance of drafting a communication strategy for Mamaia resort, which in the summer of 2021 will celebrate 115 years of activity.

Key words: public relations, marketing events, Mamaia resort, Romania 2021
J.E.L. classification: L26, M 30, M 31, M37, Q26, Z32

1. Introduction

The entire human society is constantly changing, a change generated by an array of factors, among which the advancement in science and technology plays an important role. The development and modernization of the organizations' communication activity with their customers is obviously necessary and, at the same time, very important for ensuring their success. In the current context, organizations are compelled to rethink their marketing activities and strategies, increasingly integrating new digital and social media, combining them appropriately with the traditional marketing techniques and correlating them with lifestyle changes and consumer behavior. Permanently, the organization, through its entire activity, conveys a message to customers, whether in a positive, negative or neutral way, but it must watch carefully when, to whom and what it communicates, because the image, reputation and success of the organization depend on these aspects.

2. Theoretical background

The digital age offers a variety of new information and communication tools, which have an impact on the promotion and marketing communication activity. New marketing concepts highlight these aspects.

Relational marketing brings to attention the pursuit of establishing long-term relationships with the stakeholders, the orientation from occasional transactions to stable, long-term business relationships, with positive economic, social and psychological effects (Kotler; Armstrong, 2015, pp. 5,7,17,25).

About *integrated marketing communication* one can say that it acts on two levels: convincing the customer to purchase a brand, then securing the loyalty of the customer towards that brand (Rogojinaru. 2004, p.32). Integrated marketing communication determines the organization to carefully integrate all its communication channels (advertising, sales forces, public relations, sales

promotion with direct and digital marketing) in order to send a clear, positive and convincing message, in all the points of contact between the customer and the organization (and its brands) (Kotler; Armstrong, 2015, pp. 373, 377). Public relations, as a marketing tool, is considered to have had a more limited use, until recently. Around the mid-90's, the first practical and academic attempts appeared in Romania (Rogojinaru, 2004, pp. 7-8). There is a multitude of opinions expressed by international specialists regarding the content of public relations. In a clear manner, the Public Relations Society of America (PRSA) stated in 1988 that "Public relations helps an organization and its publics adapt mutually to each other" (Curtin; Gaither, 2008, pp.18-19). Particular aspects of this marketing tool include the orientation towards influencing public opinion and behavior, gaining customer trust and credibility for the organization and its brands, stimulating the active role of customers in public relations messages and campaigns, from the perspective of the new technologies. At the same time, public relations involves activities of effective communication with the public and concerns which show responsibility towards employees, local community and the environment. These are steps that help create a solid image, reputation and ensure the success of the organization. (Cerkez, 2002, pp.6-7,10). Public relations is used to promote products, people, places, ideas, activities and even nations (Kotler; Armstrong, 2015, p. 397). Public relations practices differ from other marketing activities in the way they are organized in the context of a specific situation, aiming to educate / influence customer preferences (Rogojinaru, 2004, pp.114, 116-117), but also stimulating them to express their feelings. People need to communicate with each other, and the new technologies provide them with various possibilities of communication. In this context, one can notice that marketing specialists seek to capitalize on the new technologies in order to stimulate people to interact with each other, but also with the organization / brand through new forms of manifestation: posting reviews, comments, broadcasting videos on social networks, etc. (Kotler; Armstrong, 2015, pp. 397-398).

The main tools used in public relations are news and events. On the one hand, a goal is to look for favorable news about the organization, and on the other hand to organize events capable of generating positive news.

Events are not a creation of the present, specialists believing that events have existed since the time of ancient Rome (Schafer-Mehdi, 2008, pp. 9, 27), but marketing has capitalized on them as a communication tool.

Events can be classified into natural events (organized on the occasion of the anniversary / founding of an organization, inauguration of a new location, launch of a product / service) and special events (economic, social, scientific, cultural, sports) (Kotler; Armstrong, 2015, pp. 399-400).

Marketing events must be analyzed according to their complex character / content: they determine the dialogue, the interaction between the organization and the customers, as well as among the customers; they create emotion, motivation, action so that customers become active participants; they have a more intense and lasting effect (compared to other marketing techniques) because they address all the customers' senses; they can be determined by economic, psychological, social factors (Schafer-Mehdi, 2008, pp. 27-29, 42-43). In the current period, marketing events can take place through a variety of actions, from the traditional ones: organizing conferences, speeches, traveling shows, launches; printing of written materials-brochures, newsletters, magazines, catalogs, articles; company identity materials (contract forms, payment documents, uniforms, cars) to modern / digitalized ones: audio-visual materials (DVDs, online movies), websites, blogs and social media (You Tube, Facebook, Pinterest, Twitter, etc.) (Kotler; Armstrong, 2015, pp. 399-400).

These aspects explain the interest of organizations in intensifying the extensive use of marketing events.

3. Research methodology

In the elaboration of this study, we have used qualitative marketing research, based on secondary information collected, using a longitudinal profile, from sources representing documents, mass media articles, publications published in the late nineteenth-early twentieth century, but we have also accessed information from online data sources. The processing consisted

in interpreting these data, in an attempt to reconstruct, in this way, the economic and social reality of the city of Constanța, in the period after Dobrudja's return to the Romanian Principalities, following the War of Independence, concluded in 1878. Furthermore, the analysis of secondary information, representing the approaches of specialists regarding public relations has been the starting point for the development of proposals for the organization of the 115th anniversary of the establishment of Mamaia beach.

4. Data, results, and discussion

The research carried out for the elaboration of this study has allowed us to obtain a large volume of information, whose processing was directed towards the analysis of the connection between the development of port and tourist activity in Constanța, while the establishment of Mamaia beach is precisely the result of the pursuit to keep the city as a port and tourist resort.

4.1. Tomis – a natural port on the Black Sea

In order to understand Constanța as a current tourist city, we consider that we must go back in time and bring to attention several relevant aspects. The history of Constanța begins, according to the specialists, approximately in the 6th century BC, when the Greeks founded on a promontory (DEX, 1998, p. 858), a colony called Tomis (initially in the form of an emporion, respectively of a fair organized in a foreign country, in addition to a maritime stopover) (Păuleanu, 2006, p. 5).

The geographical positioning was, from the very beginning, the aspect which drew the attention of Greek navigators and represented an opportunity for a future human settlement / city. The configuration of the place - elevated territory, with the appearance of a trapezoidal peninsula, surrounded on three sides by the waters of the Black Sea, seems to have been a natural port which provided living conditions to the Geto-Dacian population, but also possibilities for ships' anchorage (due to the sheltered opening, formed on the south-eastern direction) (Păuleanu, 2006, p. 10). After the Greek colonization, the Black Sea began to be capitalized on as "a link between peoples, a factor of progress" (Păuleanu, 2006, pp. 8, 107). The opening to the sea, representing the access to the world, could explain the continuing interest in Constanța.

Without going into the details of the history of this city, we recall that during its long existence it was, in turn, a Greek colony, a Roman colony, invaded by several migrant peoples, then for about 450 years it was under Ottoman rule, and since 1878, following the War of Independence, it returned (together with the Dobrudja region) to its country of origin (today's Romania). Also, the city was completely destroyed several times, but it had the ability to be reborn every time (Păuleanu, 2006, p. 5).

About the modern period of development of the city of Constanța one can say that it started in the middle of the 19th century and was mainly due to the construction of the railway (Constanța-Cernavodă, in the period 1858-1864), as well as of the Cernavodă bridge over the Danube (1890-1895). These investments in infrastructure elements ensured the connection between the city of Constanța (implicitly, also the Dobrudjan area) and the Romanian Principalities, but also a bridge between the West and the East (Duployen, 1933; Păuleanu, 2006, p. 64).

There followed a period when the local and national leadership were concerned with the development of the port, considered, ever since 1850 by Ion Ionescu de la Brad, as a way "to extract Constanța from ruin and inactivity" (Păuleanu, 2006, pp. 61, 69). Right from the first visit to Constanța, in October 1879, King Carol I drew attention to the importance of the development of the seaport (Păuleanu, 2006, p. 78). In 1889, the works for the extension of the port of Constanța began, under the coordination of engineer Anghel Saligny. The entire subsequent evolution of the city of Constanța took into account the development of its port and balneary functions (Păuleanu, 2006, p. 127).

The effects of these investments were quickly reflected in the growth of economic activity, both in Constanța and throughout the country (Jugănaru. coord. 2020, pp. 70-71, 75, 74). At the same time, the economic development recorded towards the end of the 19th century (also viewed in terms of increasing population's income) generated multiple social changes. The completion of the railway and Cernavodă bridge (which at the time of its inauguration was the longest bridge in Europe) (https://www.historia.ro/sectiune/general/articol/cum-a-reusit-tanarul-inginer-anghel-

saligny-sa-ridice-cel-mai-lung-pod-din-europa) led to an increase in the volume of transported goods, the development of domestic and international trade, but at the same time they facilitated the transport of tourists to Constanța.

For certain social classes, the desire to travel, the attraction for holidays at sea was becoming more and more obvious (Păuleanu, 2006, pp. 147, 181), which generated the increase in tourist demand. At the same time, the economic development of the city also contributed to the increase in accommodation capacity (an element of the tourist offer) in Constanța.

While at the time of its union with the Romanian Principalities, in 1878, Constanța was considered a "ruined Turkish village" (Huhulescu, 1934, p. 1; Păuleanu, 2006, p. 86), in 1898 the city was already drawing attention through its development. A journalist of the publication "Familia" shows his amazement both in terms of economic achievements in Constanța, recalling new buildings, wide streets, elegant hotels, the multitude of shops with oriental goods, the large size of the port, and the beauty of the landscape offered by the expansive sea (Familia, 1898, p. 507; Păuleanu, 2006, pp. 84, 93).

4.2. Constanța – a balneary resort

The healing qualities of the port-settlement called Tomis seem to have been appreciated since the Roman domination, but regarding the tourist activity, it is chronicled that during the Turkish administration (which ended in 1878), bathing in the sea was done in Constanţa (it was called Kustendje at the time), on the south-east coast, under the open sky and in the barracks (Dacia, 1924, p. 1; Păuleanu, 2006, p. 180).

The interest of the Romanian administration in finding the best coastal areas, where beaches could be set up, manifested immediately, after 1878, sensing the development potential of the city also in terms of tourism. One place where sea bathing was done was Modern beach, founded in 1876. Shortly afterwards, a Serbian investor, Radacovici, built some cabins near Carol I Hotel, but access to the water was difficult due to the rocks on the seabed. This beach did not last long and a new beach started to be set up, to the north, in the bay next to the Armenian church. After another period, the south of the city was taken into consideration for a new beach (Păuleanu, 2006, pp. 181-182, 184).

In the mass media of the time information is recorded, from which one can construe that the most requested beach in the city was the one called "La vii", founded in 1885, according to the plans of engineer Gafencu which could be reached by train, which both locals and tourists called the train of pleasure (Tarascon, 1906, pp. 2-3; Păuleanu, 2006, p. 152). Then the same designation was used for the train that connected Constanța and Bucharest, and the passengers were called "pleasurables". In another note, signed by Barbu Ștefănescu Delavrancea, dated August 16, 1887, it is recalled that the road from the city to the beach was crossed by train, the route included four stops (Ovidiu, Gară - Railway station, Tomis and Tetis), then tourists climbed down the stairs from the high coast to the beach. It is also specified that "La vii" beach was organized separately for the ladies, on the left side, and for the gentlemen, on the right. (Barbu Delavrancea, 1970, pp. 113-121; Păuleanu, 2006, pp. 153, 156). On the beach "bathing establishments" were set up, represented by 56 wooden cabins, land crossing bridges and stairs for descending into the sea water. For tourists who knew other seaside resorts from abroad, the separation of the beach "La vii" was a contested issue (Păuleanu, 2006, p. 154). The constant increase in the number of tourists who came to this beach determined the authorities to decide, in the summer of 1899, to increase the number of journeys, per day, which the train made in order to ensure the transport of the tourists along the city-beach-city route. (Păuleanu, 2006, p.155).

From one year to the next, Constanța became more and more appreciated as a tourist destination, and in 1882 it was already listed as one of the main balneary resorts in Europe (Păuleanu. 2006, p. 184).

In 1892, another 52 cabins were built, in the area of the Genoese quay, and in 1895, the setting up of another 35 cabins (in each place) was decided for two other places. Even under these conditions, in the newspaper Constanța, of 21 April 1896, the opinion that, at that time, the city of Constanța had few set up beaches is recorded (Constanța. 1896, p. 2; Păuleanu, 2006, p. 191).

4.3. The abolition of the "La Vii" beach by expanding the port

In 1892, Constanța was already classified as a "balneary resort" and operated on the basis of a "Regulation", draftd by the mayor's office and endorsed by the Ministry of Interior (DJAN, 1892; Păuleanu, 2006, p. 188).

The beginning of the works for the expansion of the port of Constanța, in 1889, represented on the one hand an opportunity for economic and social development, and on the other hand the treat to reduce the tourist activity. Only a few years later, the following aspects were mentioned about Constanța: "Able to reach through its port, the true gateway of European trade for the Orient, the city is perceived, in 1899, as a first-rate balneary resort; however, new industrial developments are beginning to hinder the traditional type of approach" (Tomis, 1899, p. 2; Păuleanu, 2006, p. 194). In fact, the lack of a suitable beach, but also the appearance of new resorts / tourist localities, such as Mangalia, Carmen Silva, Eforie (with wide beaches, easy access to water) led to the loss of the seaside resort position and privileged climate position ("Constanţa Conservatory", 1911, p. 3; Păuleanu, 2006, p. 185). In 1900, a businessman from Constanța proposed to the mayor and local councilors the setting up of adequate beaches, in order to support Constanța's character of balneary resort. This was followed, in 1903, by the modernization of the men's beach in the Pescarilor bay area (today's marina area) (Păuleanu, 2006, pp. 194-195).

All the pursuits of the local authorities aimed to support the image of Constanța as the largest port and the most important maritime balneary resort (Păuleanu, 2006, pp. 195-196). Proposals began to appear to move the beach to the north of the city, to Mamaia, even if it was considered that the area was at a greater distance from the city. In fact, in 1904 a shore consolidation project was approved, on which occasion the construction of dams to create a beach in Mamaia was also proposed ("Dacia", 1928; Păuleanu, 2006, p. 185).

4.4. Looking for a new beach for Constanța

Given that the attraction of spending the holidays at the sea (which means tourist demand, expressed in the number of tourists) increased visibly from one year to another (Jugănaru, 2007, pp. 352-353), city officials, businessmen, specialists of different professional categories thus became concerned with finding a new beach, near the city ("Aurora", 1895, p. 3; "Steaua Constanței", 1905, p. 2; Păuleanu, 2006, pp. 181, 186, 198), to compensate for the abolition, by executing the port's modernization works, of the beach called at that time "Băile la Vii". Even the remarkable engineer Anghel Saligny, who coordinated the construction of the bridge over the Danube, and then the works to expand the port, got involved in the process of choosing a place for a new beach in Constanța (Păuleanu, 2006, p. 180). In his opinion, expressed on January 9, 1904, the condition for the city of Constanța to develop as a balneary resort was to have a beach properly equipped for tourism activity (http://vladimirrosulescu-istorie.blogspot.com/2012/09/mamaia.html). This beach would have to be close to the city, cover a large area, have accomodation spaces as close to the sea as possible, so that tourists, especially families with children, could spend the entire day at the beach, as was the offer of some famous foreign beaches, such as Ostende, Scheveningen and others (https://turismistoric.ro/concediul-la-mamaia-asa-cum-nu-il-cunoasteti/).

During the debates, the attention of several people turned to the northern part of the city. Almost 10 years before the decision to set up a new beach was taken, an attractive place was mentioned in the press "12 km north of the city a long beach, with huge sand deposits, without banks, on a stretch of 5 km ... rivals with the Mediterranean coasts" ("Constanța", 1896, p. 2; Păuleanu, 2006, p. 191). But, at that time, no attention was paid to this aspect. The land area between Lake Siutghiol (to the West) and the Black Sea (to the East) was like a strip of deserted coastline, with sand dunes whose height reached 5-7 m, and at the end of this strip there was a modest settlement of fishermen, with rare houses and a famous water mill, at the border of Lake Siutghiol (https://turismistoric.ro/concediul-la-mamaia-asa-cum-nu-il-cunoasteti/). But the settlement, modest and deserted, quite difficult to reach, was already a favorite place of the Romanian aristocracy, which went there to spend the summer holidays and for aerosol therapy, ever since the end of the 19th century.

The decision to move the main beach of Constanța to Mamaia generated many debates, disagreements and tensions between various interest groups.

4.5. The setting up and the inauguration of Mamaia beach

At the initiative of Professor Ion Bănescu, mayor of Constanța (between 1905-1907), Mamaia beach began to be set up in 1905. By moving the beach, considered at the time mayor Bănescu: "Today's city, quite narrow and crowded, will remain the port city, of noise and movement, and Mamaia will become, in the future, a meeting, rest and health place" (Păuleanu, 2006, p. 196). It should be noted that mayor Ion Bănescu was the one who recognized the beauty of this place, but also the opportunity that by tourism capitalization the city of Constanța, but also the entire country would win (Iancu, 2015).

The project for setting the beach in Mamaia was drawn up by architect Petre Antonescu, and French landscape architect Eduard Emile Redont drafted the plan for the systematization, subdivision, beautification of the beach and its surroundings (Păuleanu, 2006, p. 196).

The first constructions were done in 1906 by the Ministry of Public Works (where Anghel Saligny was a director) and a private investor and represented two pavilions of 56 cabins each, completed with an elegant gazebo, as well as 80 mobile booths (45 for men and 35 for women). Furthermore, safety ropes had been fitted in the delineated area to enter into the sea, so as to avoid accidents. (https://www.europafm.ro/azi-se-implinesc-111-ani-de-la-inaugurarea-statiunii-mamaia/)

The reception and conclusion of the delivery receipt minutes of the construction, between Constanța City Hall and the entrepreneur Ecaterina D. Nicolaescu, took place on July 1, 1906 (Iancu. 2015) or on the 15th, according to other sources, when the entrepreneur took charge of the beach, and on June 20, 1906 began its use (Luca, 2020).

The inauguration of the resort took place in August 1906, according to some sources on August 28, 1906 (*https://www.litoralulromanesc.ro/descriere_mamaia.htm*; https://www.europafm.ro/azi-se-implinesc-111-ani-de-la-inaugurarea-statiunii-mamaia/), and other sources mention the date of August 22, 1906. (https://litoralcazare.com/scurt-istoric-al-statiunii-mamaia/-Plăiașu - https://www.historia.ro/sectiune/general/articol/concediu-la-1912-baile-de-mare-la-mamaia).

The inauguration event consisted in the organization of two trains, one for officials, another for tourists, which travelled on the road from Constanța, to Băile/Baths (beach) Mamaia, in an hour and a half, and from 19 o'clock a party took place. The newspaper "La Roumanie" stated: "Constanța today has a beach that will place it among the great balneary resorts in the Orient" (Luca, 2020. https://discoverdobrogea.ro/mamaia-statiunea-vizitata-de-milioane-de-turisti-in-ultimul-secol/).

After the inauguration, the construction of the beach in Mamaia was leased (as was the case with the beaches in the city), and the first contractor was Ecaterina D. Nicolaescu (https://www.cain.ro/mamaia-litoral/).

In a short time, the beach became an oasis of peace and relaxation for the elites of the time, then even for the royal family.

The transport of tourists from Constanța (from the train station) to Mamaia beach was done by rail, but the carriages were also used. Engineer Anghel Saligny coordinated the installation works of the Constanța - Mamaia railway line in 1905. In fact, in 1905, the Constanța-Băile (beach) railway from Vii (with a length of 3.1 km) was abolished first, and with some of the recovered materials, the Railway Directorate-Constanța Railway Service built the Constanța-Băile (beach) Mamaia railway (8 km long).

It is known about the railway station in Constanța that it was built between 1860-1862 (Păuleanu, 2006, p. 108), under Ottoman administration, by the same English company that built the Constanța-Cernavodă railway.

The train station in Mamaia (located next to the Casino today) was inaugurated on October 2, 1905 and existed until the early 60's. In the beginning, the railway was used only in the summer season, to transport tourists, but in certain periods it was used for strategic purposes (military, during wars or for transporting construction materials) *(https://turismistoric.ro/concediul-la-mamaia-asa-cum-nu-il- cunoasteti/)*.

The railway between Constanța and Mamaia is presented as a significant achievement in the anniversary volume "1878-1928 DOBRUDJA. Fifty years of life" (Brătescu; Georgescu. 1928). In addition to technical aspects related to the railway, aspects related to the development and the importance of this beach are also presented. In this context, we remember Queen Maria's love for the sea and Mamaia beach, but also the impact that the construction of the Royal Castle had on the

development of the resort. It is specified that at that time, the beautiful Mamaia beach stretched for a length of 14 km, up to Capul Midia. It was also estimated that this railway would be used throughout the year, given that "the city has developed a lot in that part" (Brătescu and Georgescu, 1928, pp. 439-440).

4.6. The 115th anniversary of the establishment of Mamaia beach

In 2021 there will be 115 years since a new Constanța beach was inaugurated, which in time became Mamaia tourist resort, appreciated / considered as the reference resort of the Romanian coast. Few people know the history of this resort, whether we are referring to tourists, but also to today's inhabitants of Constanța city. Through the documentation carried out in this study we have found that there are people interested in bringing to attention various materials that contain valuable information about significant moments in the evolution of the resort. We are positive that the reunion and involvement of these people (who respect the history of these places and want to transmit to generations of young people emotion and attraction for Mamaia and Constanța) would contribute to formulating unique proposals for organizing the anniversary event of Mamaia resort in the summer of 2021.

We believe that throughout the summer season, the „Mamaia of 115 years of existence" event should be made known by „preparing printed materials to be placed in all accommodation, dining and leisure units; placing, in as many places in the city and resort as possible, of billboards containing a slogan and logo specially designed for this event; the installation of plaques / panels in representative places to remind of the existence of some attractions which have disappeared, but which had a special significance to the image of the resort; organization of exhibitions with paintings, sketches, documents regarding Mamaia beach; presentations of swimsuit models, but also of clothing, especially from the beginning of the tourist activity; the revival of some forms of leisure (Jugănaru, 2006, p. 37) practiced / encountered during that period; organizing concerts with music specific to the early twentieth century.

On August 22 or 28, we propose to organize the restoration of the route, crossed in 1906, using a combination of means of transport, reminiscent of the charm of past periods.

The initial route started from the old Constanța train station, crossed the central area of the city, on Calea Mangaliei (today Ștefan cel Mare street), and from the intersection of the current Tomis and Mamaia boulevards it oriented to the North, through the Tăbăcărie neighborhood and on the seafront, stopping at Băile Mamaia (https://turismistoric.ro/concediul-la-mamaia-asa-cum-nu-il-cunoasteti/).

5. Conclusions

In various documents it is noted that events were organized in Constanța, related to the establishment of economic objectives or the celebration of important moments in the history of this place.

The summer season of 2021 represents an opportunity for the local administration, culture, art, history specialists, business representatives, institutions, organizations, associations, etc. to celebrate the 115th anniversary of the establishment of Mamaia beach, in fact marking the 115th anniversary of Mamaia resort. We believe that the event would have a positive impact from a social and emotional point of view on tourists and locals, but also from an economic and image point of view for the business environment. All actions within the event should also be accessible online for greater visibility.

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Higher Education Graduates' Cross-Cutting Competences and Skills and Employability

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Abstract

The article is a product of the implementation of activities in the project framework CNFIS-FDI-2020-0652, Social Equity and Competitiveness in Partnership with the Socio-Economic Environment within a Modern European University. The project aimed at promoting the youngsters' access to higher education standing by the principles of equality of chances and non-discrimination, competitiveness, and permanent collaboration with the socio-economic environment. The analysis conducted demonstrates that all three categories of participants (employers, students, and professors) are focused on the importance of cross-cutting skills in the formation of a specialist (regardless of the study domain). The research results highlight the needs of the employers concerning the structure and the importance of cross-cutting skills of students/graduates when they are hired.

The most important cross-cutting skills that resulted from the study include creativity; critical/analytical thinking; utilization of information technology; oral and written communication skills in maternal/foreign language; flexibility/adaptability; initiative and entrepreneurial spirit; teamwork; openness to lifelong learning.

Key words: higher education, competence, cross-cutting skills, labour market
J.E.L. classification: A 22, A 23, D 83

1. Introduction

The studies of specialists in education sciences and the endeavours of international organizations in the field of education bring to attention the importance of correlating higher education with the evolution of the environment to ensure economic development and increasing the labour market insertion. It can be noted that, to this end, the focus shifted from the professors to the students, in a larger vision that encompasses lifelong learning (Deaconu et al., 2014, p.693). The main actors in the educational process of higher education are the professors and the students, where professors transfer knowledge, while the others assimilate. Teaching seems to be the core explanation for the two orientations in higher education. Teacher-centred learning is characterized by a passive teaching process, in which the professors mainly use lectures to transfer knowledge, while the students' involvement is merely limited to taking notes. Student-centred learning aims at ensuring a new framework for learning involving the student more actively by practising adequate forms of teaching (Crețu, 2019, p.17). Professor Cerghit considers that "there are no good or bad methods, but adequate methods, well or poorly used" (Cerghit, 2006, p.51). Modern pedagogical methods aim at creating a framework for student participation in the act of teaching, guiding students to accomplish team projects, analyse, interpret, participate in debates, case studies, problem-solving, etc., to aid students to develop critical and reflexive thinking. This orientation requires the capacity to develop learning experiences for students. Student-centred education should not be regarded as an effort of professors to change their teaching style, but rather the professors must identify the learning needs of each student and offer guidance (Crețu, 2019, p.17).

Student-centred learning has positive effects for students, professors, and the higher education institution.

Even though in this study we deal with the importance of cross-cutting skills in the education of students at "Ovidius" University of Constanta, we consider that certain explanations regarding the concepts at the centre of the educational system reform are useful to our endeavours.

The ample process started in the '70s to modernize and reform education, so that it becomes adequate to the knowledge society, brings forth the concepts of curriculum and competence (Jonnaert et al., 2010, p.17). Curriculum may be defined as "…a system made up of a series of educational components. Articulated among themselves, these components permit the orientation and operationalization of an education system through pedagogical and administrative action plans" (Jonnaert and Therriault, 2013). The European higher education system applies the competency-based curriculum, but perceptions toward this orientation differ from country to country. At the same time, there are different approaches to competences, as the main pillar in designing the higher education curriculum as opposed to pre-university education (Crețu, 2019, p.184). Although there are different definitions of competences, there is not a generally accepted definition (Gilis et al., 2008 in Deaconu et al., 2014, p.695). Competences are regarded as "fuzzy concept", subject to debate and confusion and the cultural context influences the grasp of the notion (Le Deist and Winterton, 2005). Concerning the classification of competences, the literature breaks them in two categories – professional and cross-cutting (Leckey and McGuigan, 1997, in Deaconu et al., 2014, p.695). The cross-cutting skills received increased attention during the past years from both academia and international organizations such as Asia-Pacific Economic Cooperation (APEC) and Organisation for Economic Cooperation and Development (OECD), which denote them by "21century skills" (APEC, OECD). The cross-cutting skills besides the professional skills complete the professional profile of individuals and facilitate their insertion in the labour market. Furthermore, recent debates argue that all academic courses should provide students with generic competences (communication, teamwork, problem-solving, creativity and time management), there is mentioned the preoccupation with their assessment and with those types of competences that although not immediately connected to the career development become vital for society development (Chan et al., 2017). We are aware that the terms "competence" and "skill" are not synonyms, but are used interchangeably in certain contexts. In this study, however, we will not elaborate on the matter of competence vs. skill.

The project CNFIS-FDI-2020-0652 *Social Equity and Competitiveness in Partnership with the Socio-Economic Environment within a Modern European University* – SMART-COMPETE is a national project financed through the Institutional Development Fund and implemented by "Ovidius" University of Constanta during May-December 2020. The project promoted the idea that education is the only sustainable way of evolution for both individuals and society and it sustained the principals of equality of chances and non-discrimination, the competitiveness, as well as the constant dialogue and collaboration between the university and the socio-economic environment. In accordance with the scope of the project, one of the project activities aimed at consolidating the partnership between the university and the socio-economic environment and at identifying the labour market needs concerning the cross-cutting skills of graduates. The project is an example of how the professors of the "Ovidius" University of Constanta are involved in ensuring the students' education fits the present requirements of society and the labour market at national and European level, following the university's mission "to develop a competitive and collaborative educational and research environment aimed at creating, maintaining and delivering knowledge to society" ("Ovidius" University of Constanta Charter, art.10).

2. Theoretical background. The general framework regarding student-centred learning and competency-based education

Student-centred learning based on competences with a focus on learning outcomes makes the object of different actions initiated by institutions at national and European level. We will only bring to attention those essential to the purpose of the present article. The Europe 2020 Strategy acknowledges and emphasises the importance of education and training (European Comission, 2010). The European Qualification Framework (EQF) was set in 2008 and revised in 2017 and is

extremely useful for achieving transparency, comparability and transferability of individuals' qualifications (https://europa.eu/europass/en/european-qualifications-framework-eqf).

In Romania, the National Framework of Qualifications in Higher Education (CNCIS) was created. CNCIS is compatible with the European framework and aims at "optimizing the university curricula to ensure the legibility and convergence of learning outcomes at all levels and forms of the national qualifications system" (CNCIS Methodology. Implementation Guide, 2013). CNCIS classifies competences in professional competences and cross-cutting competences. The professional competence is "the proven capacity to adequately select, combine and utilise knowledge, skills, and other acquisitions (values and attitudes) to successfully solve a certain category of work or learning situations, related to the respective profession, in conditions of efficacy and efficiency". The cross-cutting competences are "those that transcend a certain field or study program, having a transdisciplinary nature. These include teamwork skills, oral and written in maternal/foreign language skills, information technology and communication skills, problem-solving, decision making, knowledge and respect of diversity and multiculturality skills, autonomous learning, initiative and entrepreneurial spirit, lifelong learning, development of values and professional ethics, etc." (CNCIS Methodology. Implementation Guide, 2013).

Competency-based education is also stipulated in the National Education Law, art.4 (Law 1/2011). Furthermore, Article 117 refers to the mission of higher education to "generate and transfer knowledge to society through initial and continuous training at the university level, to the end of personal development, professional insertion of individuals and satisfying the need for competencies of the socio-economic environment" (Law 1/2011). The Romanian Agency for Quality Assurance in Higher Education (A.R.A.C.I.S.), member of the European Network for Quality Assurance in Higher Education – ENQA, registered in the European Quality Assurance Register for Higher Education – EQAR, is the Romanian institution which has the mission to evaluate the quality of education in higher education institutions and other organizations which offer higher education study programs. ARACIS specific standards regarding external evaluation of the academic quality of study programs at bachelor and master degree levels stipulate that "the students' professional and cross-cutting competences acquired by graduation should be sufficient to allow their insertion in the labour market, the development of their businesses or the continuation of study to the next level" (ARACIS). The ARACIS specific standards refer to several aspects regarding the operationalization of skills in higher education. Therefore, the professional and cross-cutting competences should be mentioned in a separate section of any curriculum of a study program. The syllabus elaborated for each discipline of the curriculum contains the professional and the cross-cutting skills acquired by students. Furthermore, the competences acquired are mentioned on the bachelor diploma supplement (per the Ministry Order no.5289/2008) or the master diploma supplement (per the Ministry Order no. 4151/2010).

3. Research methodology

The present study comprises a desk research on points of view of education sciences experts on the importance of competences in designing the curriculum, and also a direct research using the focus group method (Jupp, 2010, p.207-208). The intersectoral forum for identifying the needs of cross-cutting skills and competences in the labour market organized by "Ovidius" University of Constanta in the frameworks of the afore-mentioned SMART-COMPETE project, CNFIS-FDI-2020-0652, in December 2020, was the occasion to collect qualitative information from three relevant categories: employers, students/graduates, and professors. The objectives included: the creation of an adequate framework to develop interactive discussions among participants, about the way the competency-based educational system in Romanian is known by the employers and students/graduates, the importance of cross-cutting competences and skills for the employability, how the employers evaluate the level of competences of graduates, the role of the professors in the development of students' competences. This working method based on free expression of opinions and debate facilitated the gathering of presumably non-biased information about the common interests of the three categories of participants concerning the development of professional and especially cross-cutting skills and the graduates' employability.

4. Results and discussion

The forum gathered professors, students, and employers from different fields – industry, services, tourism. At the beginning of the event, there were introduced the objectives and the expectations of the organizers. Next, a detailed presentation about professional and cross-cutting competences and skills and their role in the modern approaches to higher education was delivered. Subsequently, the organizers moderated the discussions in which the participants expressed their points of view regarding the cross-cutting competences and skills and their individual importance in different contexts, domains, and work situations, the relationship between acquired cross-cutting skills and the employability of graduates, and the ways through which education contributes to the development of these competences and skills, in addition to the development of the professional ones. The representatives of the employers agreed on the high importance of cross-cutting skills for the employability of graduates, the relevance of cross-cutting skills at hiring being even higher than that of professional skills. This conclusion was in line with those of international organizations (APEC, OECD). Employers value increasingly the need that graduates prove the acquirement of a set of cross-cutting skills and the capacity to apply those skills in practical work situations. The professors, through teaching and research activities, are increasingly involved and contribute to the development of cross-cutting skills by the students.

The main conclusions that emerged include: the development of the cross-cutting competences and skills should start as early as possible, even in preschool; the student is the first who should understand and be involved in the development of their cross-cutting skills; the employers bestow increasing attention upon the cross-cutting skills when selecting new employees/interns; the acquired cross-cutting skills improve the graduates' employability.

The employers agreed upon a hierarchy of the cross-cutting competences and skills: creativity; open-mindedness; critical/analytical thinking; use of information and communication technology; oral and written communication skills in maternal/foreign language; flexibility/adaptability; initiative and entrepreneurial spirit; teamwork; lifelong learning.

The professors raised the issue of the need to improve and refine the teaching methods and to develop extracurricular activities to raise students' interest to actively involve and improve their cross-cutting competences and skills. The debates reached the consensus that the collaboration between the university and the socio-economic environment should be strengthened by a more profound implication of the employers in the educational process. An identified and agreed-upon solution was that to involve the representatives of the socio-economic environment in the design of research themes and/or practical applications for students.

5. Conclusions

The cross-cutting competences and skills acquired by the students of the faculties within the "Ovidius" University of Constanta (which supply study programs in very varied fields – humanities, social sciences, medical sciences, engineering, arts, and theology) condition their employability. The professional competences are important, but at the same time, they must be doubled by cross-cutting competences and skills to ensure the graduates' competitiveness and smooth insertion in the labour market. The main conclusion of the presented study is that only through the close cooperation of all categories in the labour market (employers as representatives of demand, and students and professors as representatives of the supply) the proper development of cross-cutting competences and skills may be achieved at pace with the evolution of the society and thus ensuring the employability of graduates and the sustainable development of the educational process.

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Are There Positive Words in Marketing? A Study on the Vibrational Frequency of Marketing Words

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Abstract

The words we use are our true mirrors. What we write, think and talk show our true personality and these words are energy, measured by vibration and frequency. If this is so, that means also that marketing words have their own energy, measured by vibration and frequency and maybe that is the reason we consider them as being positive or negative, from the perspective of the sender or the receiver.

This paper presents an experiment conducted on students from Romania and USA, in which we measure the vibration of English spoken words used in Marketing. The aim is to see if we can speak about positive words and if these words actually sell. We want to compare the results between two groups, both fluent in English, but some of them being natives and the others not.

Key words: positive and negative words, vibration of the words, frequency of the words, words that sell
J.E.L. classification: M30, R59, Z18.

1. Introduction

We can see that everything that is around us is energy which can be measured by vibration and frequency. From the undetectable photons that are all around and help making the light that we are using even to read this paper, to the cells from our bodies, everything has a vibration and a frequency. We might perceive everything that we use way solid that it is, but beneath it everything lies into a field of vibrating waves and particles.

But are the word also energy? Or can they be measured by vibration and frequency? How can we size their impact? Can we speak about positive and negative words? In which manner can they be considered as being positive or negative? From what perspective: the sender's or the receiver's?

These where the questions we started with and we continued by adding all this interest to the marketing sphere, to those words used in the selling process.

Understanding the power of words and their effectiveness is the key of success in life (Muthusamy, 2019, p. 105). The word represents the perpetuation of a thought. They have a strong effect on us even if they are not expressed (Cornelissen et al., 2015, p. 14). What we think, has an impact on the way we live our lives, it influences our emotions, attitudes and behavior. A spoken phrase has an even greater effect. You can never pull it back; you said it and it will have an impact. Our words have a more prominent force than our musings (Mackenzie, 2009, p.123).

Effective individuals control their words and don't let their words control them. They know about their considerations and words and the force they trigger (Maitlis and Lawrence, 2007, p. 71). To be successful, successful people understand that it is necessary to use more positive than negative words. Effective individuals are described by the words they state (Wilson, 2011, p. 4). They know about the significance of words that manufacture trust and great confidence, that construct connections and

potential outcomes. They state uplifting statements, consolation, love, acknowledgment and appreciation. (Rączy and Orzechowski, 2019, p.8).

Usually we tend more to remind certain situation when we had a bad day or a bad outcome of a situation rather than a good one. The same thing happens with the words too, we remind more easily bad words and harsh criticism rather than praise and positive criticism (Rozin et al., 2010, p. 541).

The vibration of spoken words, play a decisive role in the shaping our energy. We have incorporated in our physical constitution, linear, cartesian, sound system (frequency of the musical notes), in this way our body resonates really fast at harmonious sounds. Everything started with a word and the word, as explained in Hado breathing, it is a sound, the sound is wavelength characterize by frequency. If a word has a specific meaning it is called the frequency of energetic process, which will also have a specific understanding. What are you thinking influence directly your physic and material constitution. (Emoto, 2006, p. 22)

A great mathematician and philosopher, Pythagoras, discovered that each thing has a basis in number, after his dead he has been questioned about his theory and many scientific people had been sceptics about his research. He supported that mathematics formed the basics of all things in their existence and the numbers are the essence of creation.

Usually the way of the dictionary explains a word it will not have the same meaning and will not resonate with the right frequency, depends only the context in which that word it will be put on. Even though the words that we are using are not directly connected to our perception of manifesting, they are alternating the energetic frequency that we are communicate.

Generally, the idea concerning the power of words, the way that we spell them have an important role as the same as we are writing them and the way that we are reasoning them, is more about our thought and the meaning that we want to send them with. We can transform a word from being powerful and having a good frequency to one which is powerless and has a bad energy/frequency, it only depends on our thoughts. (Hamelin et al., 2020, p. 6)

For this research we propose to aim the problem of the differences between frequencies in terms of positive words in marketing, spoken or written, and how these words are affecting directly or indirectly the consumers or their behavior. This research is going to show how the words have an impact on people, usual consumers, who are facing the big waves of advertising in the online environment or in their life day by day. The results are going to present the effect of the positive words that are used in marketing.

2. Literature review

If we are looking for a small definition regarding to what frequency means we might end with just a simple and meaningless sentence which will tell us that the frequency represents the way that a periodic phenome is measured repeatedly into a time measure and can be measured in hertz named in honor of the German physicist Heinrich Rudolf Hertz.

In terms of frequency of words, is more of a psychological phenome where words we see often are more usually recognized and repeated rather than the words we don't see or use. Novels compared to textbooks, are using words that are used by people in everyday speech, where the textbooks contain new and complex with low level of frequency words that we might not have seen before.

Usually in most of the context in which the frequency of written or spoken words appear, refers mostly in the way that people use specific words in their life and they are mostly repetitive. The frequency of words at the moment, is related more to how many times that words or even character appear in someone's vocabulary, example for the English language the most frequent letters are the vowels. For the spoken words usually, there are different studies made on how people are saying specific words which have a significant amount of information, which comes with, so when they are pronounced they might have a low or a high frequency.

Why are words so powerful? Doesn't matter if it is a written or spoken words but they distribute the same amount of information on the different level of frequency, they only depend on the energetic way of speaking and the energy they carry with. They are not only powerful for their meaning but they are powerful from the beginning of our days till we are going to die, because they are our way of communicate and say the things how are they.

A good example of a law which explain this phenomenon is called "Law of attraction" which refer mostly to the words that we are expressing through and which they help us attracting what we are expressing. This includes the thoughts and intentions you put behind the words you use, because many of our thoughts are word-based, not just imagery (Arbeau, 2013, p. 117).

Everybody has a unique vibrational signature. We can perceive things, emotions experiences, which falls within our frequency range. Everything that have a higher frequency than us remain unaccusable to us. There are thoughts, emotions, words which have a higher frequency or can have a lower one. Lower frequency usually can be met in bad situation when our frequency decreases. Any upset, trouble, irritation, disappointment, worry, etc., to which we pay more attention than we should. Has the potential to lower our vibration so much that can change our personal point of attraction, to change our vibrational signature and to attract people, events or circumstances that will cause us even more bad energy. Epigenetics is the science that deals with our DNA and see how is altered by external and internal environment, has shown that our happiness depends on our own perceptions.

We can see the way in which the words are used nowadays in marketing: more subtle than before, more scientifically driven. If we are talking about the influence that marketing has on a consumer we can have a bigger picture about it when we refer to the way that companies make their advertising and try to sell their products. How does affect us as customers? After a lot of studies that have been made on this topic, we concluded that customers have more trust in companies that have better blogs or more appealing visual content or just because they use leaders' opinions who creates positive associations with the brand. We tend to buy those products just for our curiosity in which the ad has better appealing on a visual manner and because they are never ending advertising. Most of advertising they tend to use more emotions or try to relate a specific brand with a memory that they know that most of the consumers they will relate to it will make us buy, because we are going to associate particular sentiments to that product.

Usually for attracting more customer related to emotions and feelings most of companies are using the neuromarketing. They are trying to see exactly and make researches to see which products and services are more used by people and what should they change to their product.

Kumar and Singh (2015) concluded that neuromarketing is a way in which describes the activities of brain that have an impact on marketing stimulus, allows with specific instruments which correlates with psychology reaction, as a result of exposing subjects to certain advertisings messages. Neuromarketing help to generate fundamentals ideas regarding taking decision by entrepreneurs in their way of communicate their approaches to the market and customer, respectively a way of communication between business partners (Shahriari et al, 2020, p. 268).

Marketing nowadays is having a more comprehensive impact on our way of thinking and the way we act bigger than we think. The middle line of what we think and what we want and what marketing makes us want is more blurred than never before. For the long run, everybody benefits from it. Brands are getting more loyal consumers while they get much more than just a good quality of products from companies which they are competing for their attention (Ahmad, 2014, p. 402).

We correlate positive words with marketing because they have more impact on our brain. Usually when we present a product we try to not use the "Is not that expensive", we should present it into a simpler and better way like "Is cheap" or "It is profitable". Both "cheap" and "profitable" have a bigger resonance into the consumer mind rather than "expensive". We should not use or better avoid phrases that start with the word "no". Otherwise, the phrase such as "You won't lose your money" is more expressive if we are going to use it as "You can save your money" or "You can win money" is going to have more impact on the consumer behavior (Shareef, 2018, p. 260). To bring more clients to your own business you should focus more on the words or phrases that bring feelings when you are doing an advertising so you can have more power of decision in terms catching their interests, such as "Sales of 15% till 24 of December". Other process that help products to be sold and have positive words as keywords can be products that have a bigger segment of market and reach more categories of people such as women, kids, men, we can have words such as "shoes".

3. Research methodology

The purpose of this research is to reflect more on positive words in marketing context, spoken or written, and how do they affect the consumer. Furthermore is going to be focused and explained through the frequency of words that have been used for his research and is going to be justified and compared to see if it has a direct impact on thoughts or behaviors for the consumer use.

In order to achieve that, first we aim to identify the most positive words perceived in marketing. Secondly, we aim to measure the frequencies of the words chosen for this research. There are going to be two stages in our research, with the purpose of putting the individual into two states of mind: Zen-state and Marketing-state. The Zen-state will be a witness situation to refer to, in order to see the changes in vibration and frequencies, through the use of two languages (English and Romanian).

We conduct a comparison between the English-natives (from USA) and Romanians that speak fluently English. The nationalities used for this research (American and Romanian), are represented by both female and men subjects. The words that are measured are presented in English for both of the groups and translated into Romanian only for the Romanians.

This research aims to see the differences between the vibrations measured for each word while is spoken by Americans and Romanians on one hand, and between English words and their Romanian translation while they are spoken by Romanians. Considering the big usage of these words we will find the overall emotion of the two languages which are strongly biased concerning positive usage. The words that have been chosen for this research are associated more with the positive emotions and are being more frequently used than those with negative connotations.

The objectives of this research are:

O1. To measure the intensity of the spoken words and vibration.

O2. Determine the vibration of words spoken into a context into a reference context of Zen state of mind.

O3. Determine the vibration of words spoken into a marketing context into described as shopping state of mind

O4. To identify the emotions and sensation of this words in terms of positivity.

As a methodology, we used both qualitative and quantitative methods.

First, through a Delphi Method we conducted qualitative interviews with specialists in order to select the most representative positive words used for selling in marketing. The specialists have two valences, in terms of marketing and in terms of the English language, they have a high level of knowledge and the purpose is to generate the words that are going to be used for the experiment itself.

Secondly, through an experiment, which is a quantitative method, we measured the vibrations of those selected words. We focused on young adults that have their age between 20 and 29 and they have strong knowledge regarding the marketing field and they are fluent in English. The experiment is structured in two parts. The first part correspond to a Zen state, which is the reference context, described by trust and happiness. The second part is the shopping context.

The two scenarios are presented as follows:

To induce the Zen state of mind, the subjects in this experiment had to answer to three question which ask them about their favorite place, their favorite song and write the lyrics. In this particular context they are asked to pronounce all the words selected by us and presented to them one by one, in writing, and to record themselves while saying those words.

For the shopping state of mind, we decided to present a scenario, such as they are into a supermarket and they want to buy products for their home. By doing that they will bring the marketing state into their mind. Then they are asked to record themselves while saying the words chosen that have been integrated into images with products, presented by us. The images are chosen specifically with the same words included as in the Zen state.

We have two variables:

- The selected positive words, as the first is independent variable. The independent variable is going to variate between the Zen state and the marketing one and is going to be displayed through the words spelled for measuring the frequency (words that have been selected previous).

- The measured vibration of the spoken words, which is the second variable of the experiment – the dependent one, which determine the intensity of vibrations in the Zen state of mind and in the marketing one.

Both groups of subjects who participated in the experiment were considered as both control units and experiment units. They have participated in both experiments, there is no area of control, contextual subunits of control it is represents of the contextual of experiment that is carried out with subjects put into the Zen state or the Marketing state.

For this experiment we have been used an application which record and present the frequency and the decibels of words spelled, Audio Spectrum Analyzer dB RTA, this application has the role to show fast and accurate the spectrum analysis for data which is suitable for amateurs or engineers.

4. Findings

For the qualitative step we have selected from the literature review a number of 30 words (positive, negative and neutral) considered as being powerful in Marketing. These words were: money, health, guarantee, easy, quick, benefit, results, proven, fun, save, solution, more, want, comfort, feel, see, touch, when, where, why, cash, custom, gentle, alert, wise, hatred, alone, slow, you, and "your name" (that means the own name of the subjects used for addressing them as a tool in Marketing communication). The specialists were asked to rate from 1 to 5 the most positive words from that list. To create a hierarchy taking into consideration both the frequency of nominating and the position in the individual top of each subject, we have calculated a scoring using the mnesic score. Finally, the top 5 positive words were: health, results, fun, solution, and money. These words will be used in the quantitative part of the research – the experiment.

For the experiment itself, our sample is made by people with age between 22 and 27, both women and men, 13 women and 7 men. Students almost having a degree, most of them unemployed. The subject has been noted into the tables with the frequencies as follow, from E1 to E20. The first E1 to E13 are the Romanian ones and the rest from E14 to E20 they are Americans.

For the first part of the experiment we are going to present the Zen state of the subjects, the result analyzed are going to be measured in Hz. The average of each word is not that different and is not a big gap through the words, they somehow are related. Words with higher frequency show that they are more common words and are more recognizable by people rather than the words with lower frequency which they are called as rare words. This can be explained by supposing that there are connections between the words or that the high frequency words have a higher resting level of activation. The intensity in frequency is much smaller for females, rather than men, may also be due to the simple fact that women are much more cautious than men, also during this exercise. In spite of this, the size of the word superiority effect is the exactly with high and low frequency words.

After the first one that we can see that is the most remarkable and have the highest frequency, most of them can recall a memory which determines the higher vibration, we have the word "Health", followed by "Solution" and "Money", with the highest frequency. Doesn't matter if the words are short, they can carry a high volume of information. The words with highest frequency are consider as being easier to be remembered and have more impact on us.

For the Romanian subjects, most of the frequencies of the Romanian words are pretty high, comparing to the score of the English words. Most of the marketing communication nowadays, even though is used in Romania, is using English words. The words comparative to the ones said by the natives, as we can see carry less information regarding to marketing, most of the words that are used in Romanian can have more meaning towards people, they are related to other situation and implies other senses rather the one presented. In this state of mind each and every person that have been taken part to this experiment have different experiences, which are associated to these words, not being the marketing state, they are going to link the words with their experience towards their life and memories.

Table no 1. Comparison between the average frequencies (Hz).
Romanians vs. Americans. Zen state.

	Health	**Results**	**Fun**	**Solution**	**Money**
Romanians (English word)	1769	1036	1099	1570	1444
Romanians (Romanian word)	1663	1294	1225	1704	1802
Americans (English word)	3445	1169	664	1772	1465

Source: created by the authors based on their own findings

A second determination for the Zen state in this experiment is going to through mnesic index. Mnesics sustain the original information that become associated with something that is more accessible, that provides a better recall of the information. They are establishing hierarchies, based on a score. We have designated a score per subject, starting from the personal hierarchy of those 5 words, following that procedure: the word with the highest frequency receives 9 points, the next one for the same subject will receive 7 points, and – following the same algorithm – the fifth one will have 1 point. The mnesic score will be a sum of points per each word. In Table no 2 you can see the results for the Romanians and for the Americans.

Table no 2. Comparison of the mnesic score for the vibration of the words.
Romanians vs. Americans. Zen state.

	Health	**Results**	**Fun**	**Solution**	**Money**
Romanians (English word)	71	63	49	81	61
Romanians (Romanian word)	67	71	69	67	51
Americans (English word)	45	41	25	43	21

Source: created by the authors based on their own findings

As we can notice from table no 2, the highest vibration for an English word said by a Romanian is the word "Solution" (score 81), followed by the word "Health" (score 71) and the word "Results" (score 63). When these words are spoken by an American, the highest vibration has the word "Health" (score 45), followed by the words "Solution" (score 43) and the word "Results" (score 41). If we refer to the translation of these words in Romanian, the same Romanian respondents had a different hierarchy: the highest vibration has the word "Results" (score 71), followed by the word "Fun" (score 69) and the words "Health" and "Solution" (score 67). Despite this hierarchy, the word "Money" scored the least in all three situations – which is the single constant in our research for the Zen state of mind.

If we want to see the situation on these mnesic scores based on gender (W for Women and M for Men), the data are presented in table no. 3.

Table no 3. Comparison of the mnesic score based on gender for the vibration.
Romanians vs. Americans. Zen State.

	Health		**Results**		**Fun**		**Solution**		**Money**	
	W	M	W	M	W	M	W	M	W	M
Romanians (English word)	56	15	46	17	**38**	11	62	19	48	13
Romanians (Romanian word)	50	17	52	19	56	13	48	19	**44**	7
Americans (English word)	19	26	19	22	13	12	21	22	**3**	18

Source: created by the authors based on their own findings

We can notice that men have the highest vibration when they pronounce the words "Solution" and "Results" (for Romanians), and "Health" (for Americans), while women have the words "Solution" (Romanians when they pronounce in English), "Fun" (Romanians when they pronounce in Romanian) or "Solution" (in Americans' case). Also we notice that men have the lowest vibration when they say "Fun" (Romanians when they pronounce in English), "Money" (Romanians when they pronounce in Romanian) or "Fun" (for Americans). Women have the lowest vibration when they say "Fun" (Romanians when they pronounce in English), "Money" (Romanians when they pronounce in Romanian) or "Money" (for Americans).

To have more data that generate this type of information, the software used, have the option to show the decibels. By determining their decibels, we can analyse the way how high their voices were. The average per word in all three situations is presented in Table no. 4.

Table no 4. Comparison based on the average intensity of the voice (in decibels). Romanians vs. Americans. Zen state.

	Health	**Results**	**Fun**	**Solution**	**Money**
Romanians (English word)	50	49	49	52	55
Romanians (Romanian word)	50	47	54	57	61
Americans (English word)	52	54	59	52	62

Source: created by the authors based on their own findings

We saw that for Romanian people, when they said the words in English, we have a peak of 80 decibels (for the word "Results") and the minimum one has been of 35 (also for the word "Results"). We know that the decibels are a way of measuring the logarithmic between two planes. It is used in acoustic physics and electronics. They can show the state of mind of a person. The average intensity of the voice for each one of the subjects was between 49 and 56 decibels.

But for the same Romanian subjects, when they said the words into their language, we have a peak of 83 decibels (for the word "Health") and a minimum of 36 decibels (also for the word "Health"). In terms of average, the average per person is between 47 and 61 decibels.

For the Americans, we can see that the maximum of decibels is 76 (for the word "Money", twice) and the minimum is 31 (for the word "Health"), smaller than the Romanian ones. Their average lays between 52 and 63 decibels.

But the average per word is not a clear indicator. We wanted to analyse the hierarchy based on the place each word scored in the individual hierarchies. Therefore we used once again the mnesic scores, as described before. In Table no. 5 we can see the situation:

Table no 5. Comparison of the mnesic score for the intensity of the voice. Romanians vs. Americans. Zen state.

	Health	**Results**	**Fun**	**Solution**	**Money**
Romanians (English word)	85	65	57	65	76
Romanians (Romanian word)	49	49	63	87	87
Americans (English word)	31	37	43	27	49

Source: created by the authors based on their own findings

As we can notice from table no 5, the highest intensity for an English word said by a Romanian is the word "Health" (score 85), followed by the word "Money" (score 76) and the words "Results" and "Solution" (score 65). When these words are spoken by an American, the highest intensity has the word "Money" (score 49), followed by the word "Fun" (score 43) and the word "Results" (score 37). If we refer to the translation of these words in Romanian, the same Romanian respondents had a different hierarchy: the highest intensity have the words "Solution" and "Money" (both with 87

score), followed by the words "Fun" (score 63) and "Health" and "Results" (both with 49 score). We can notice that, even that the word "Health" has a high vibration, it has a lower intensity than others.

If we want to see the situation on these mnesic scores based on gender (W for Women and M for Men), the data are presented in table no. 6.

Table no 6. Comparison of the mnesic score based on gender for the intensity of the voice. Romanians vs. Americans. Zen state.

	Health		**Results**		**Fun**		**Solution**		**Money**	
	W	M	W	M	W	M	W	M	W	M
Romanians (English word)	66	19	54	11	41	16	46	19	53	23
Romanians (Romanian word)	34	15	36	13	58	5	68	19	64	23
Americans (English word)	15	16	19	18	15	28	7	20	19	30

Source: created by the authors based on their own findings

We can notice that men have the loudest voice when they pronounce the word "Money" in all three situations, while women have the words "Health" (Romanians when they pronounce in English), "Solution" (Romanians when they pronounce in Romanian) or equal "Money" and "Results" (in Americans' case). Also we notice that men have the lowest voice when they say "Results" (Romanians when they pronounce in English), "Fun" (Romanians when they pronounce in Romanian) or "Health" (for Americans). Women have the lowest voice when they say "Fun" (Romanians when they pronounce in English), "Health" (Romanians when they pronounce in Romanian) or "Solution" (for Americans).

Step 2. The marketing (or shopping) state

In the Marketing state of mind, the subjects were asked to imagine themselves in a store and all the words they were referred to were in that context. In Table no 7 we can see a comparison between the levels of frequency in Zen state and in Marketing state.

Table no 7. Comparison between the average frequencies (Hz). Romanians vs. Americans. Zen state vs. Marketing state.

	Health		**Results**		**Fun**		**Solution**		**Money**	
	Zen	**Mk**	**Zen**	**Mk**	**Zen**	**Mk**	**Zen**	**Mk**	**Zen**	**Mk**
Romanians (English word)	1769	1915	1036	1729	1099	767	1570	1062	1444	846
Romanians (Romanian word)	1663	1252	1294	1232	1225	1093	1704	1861	1802	953
Americans (English word)	3445	750	1169	1525	664	1033	1772	1833	1465	959

Source: created by the authors based on their own findings

As we can notice in terms of vibration, in Zen context, the Romanian words have a higher vibration than in the Marketing context (except for the word "Solution"). For the Americans, the words have a higher vibration in Marketing state, except for the words "Health" and "Money".

The hierarchy as presented by the mnesic score in terms of vibration is presented below, in table no. 8.

Table no 8. Comparison of the mnesic score between the frequencies (Hz).
Romanians vs. Americans. Zen state vs. Marketing state.

	Health		**Results**		**Fun**		**Solution**		**Money**	
	Zen	**Mk**	**Zen**	**Mk**	**Zen**	**Mk**	**Zen**	**Mk**	**Zen**	**Mk**
Romanians (English word)	71	81	63	73	49	55	81	67	61	49
Romanians (Romanian word)	67	73	71	69	69	51	67	87	51	45
Americans (English word)	45	25	41	35	25	41	43	37	21	37

Source: created by the authors based on their own findings

When we arrange the hierarchy based on the mnesic score, we observe that for the Romanians the highest frequency in Zen state (when words are in English) has the word "Solution" and lowest one is for "Fun", while for the Marketing state the highest is the word "Health" and the lowest is for "Money". When Romanians speak Romanian, the highest frequency in the Zen state has the word "Results" and the lowest one the word "Money", while for the Marketing state the highest is the word "Solution" and the lowest is for "Money". For the Americans, the highest frequency in the Zen state has the word "Health" and the lowest one the word "Money", while for the Marketing state the highest is the word "Fun" and the lowest is for "Health".

If we want to compare the result also for the intensity of the voice, we see the data in table no. 9, below.

Table no 9. Comparison of the intensity of the voice (decibels).
Romanians vs. Americans. Zen state vs. Marketing state.

	Health		**Results**		**Fun**		**Solution**		**Money**	
	Zen	**Mk**	**Zen**	**Mk**	**Zen**	**Mk**	**Zen**	**Mk**	**Zen**	**Mk**
Romanians (English word)	50	59	49	50	49	63	52	54	55	59
Romanians (Romanian word)	50	48	47	51	54	54	57	59	61	65
Americans (English word)	52	54	54	50	59	61	52	55	62	54

Source: created by the authors based on their own findings

As we can notice in terms of intensity of the voice, in Zen context, the Romanian words have a lower intensity than in the Marketing context (except for the word "Health"). For the Americans, the words have a higher vibration in Marketing state, except for the words "Results" and "Money".

5. Conclusions

This research is extremely complex and it is an opening for future similar studies. It has a wide opening towards researching more on how words affect our reality and our perception.

We have noticed that there is a difference between the vibrations of the word while they are pronounced by the same subjects in different languages. In our case, Romanian subjects that spoke words in their mother tongue and in English, even they were fluent in that foreign language, the word vibrated differently.

We also have noticed that in Zen state and in Marketing (or shopping) state the same words pronounced by the same subjects vibrated differently. That means that the context or the state of mind can influence the vibration of the words.

These conclusions repeated when the data was collected for the intensity of the voice. There is a variation measured in decibels for the same words, but pronounced in different languages or in different contexts (Zen vs. Marketing).

If we speak about positive words used in sales, we noticed that their hierarchy is different in those two contexts, but also when we refer to our subjects in terms of gender or nationality, in Zen or Marketing state of mind.

The limitations of our study start from the pandemic situation we are crossing. We had to limit our interaction and interventions with our sample.

Also the lack of information and studies conducted in this field limited the literature and references we could rely on.

Also, it was difficult to find an application which could measure all the metrics we initially wanted to determine. Therefore we limited our measurements to the application we found.

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Coaching – A Necessary Tool for Human Resources Development in Italy

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Abstract

Coaching has developed in close relation to the economic context in each country. Thus, depending on the country, coaching acquires specific traits. If we analyze the status of coaching in countries with a similar development degree, we will identify differences. As differentiating factors, we identify: the economic environment, the level and quality of research in thefield, the organizational culture etc. This paper aims to highlight the status of the coaching market in Italy.

Key words: coaching, mentoring, strategies, human resources
J.E.L. classification: E24, J21, J24, M12, M53

1. Introduction

Following the research, we concluded that coaching entered the Italian market in 1970, but has seen considerable development since 1990, when multinationals and large companies began including it in their own strategy, but also SMEs. In Italy, coaching has gained greater visibility since 2003, when the first conference on the subject was held at the Stressa, organized by the International Coach Federation. (Passmore, 2018).

In 2013, on 14 January, the N4 law regulated the coaching profession in order to protect the clients seeking coaching services. Since the law came into force, ICF Italy in collaboration with the other profile associations have worked together to develop technical regulations on coaching services to complement the legislation. (Giuffredi, 2016)

2. Theoretical background

The main entities in Italy that carry out coaching activities are: International Coach Federation (ICF) Italy with over 700 members, Associazione Italiana Coach Professionisti (AICP), which has about 400 members and the Society for Coaching Psychology Italy (SCPI) with about 100 members. (Passmore, 2018).

We found that ICF Italia was very active in the public space. On 28 November, 2019, the Local Ambassador Day – Il team coaching secondo ICF (Local Ambassador's Day – Team Coaching according to ICF) was organized. The event was simultaneously organised in several regions: Abruzzo, Emilia Romagna, Friuli-Venezia Giulia, Lazio, Liguria, Lombardy, Marche, Piedmonte, Puglia, Tuscany, Veneto, Sardegna, Sicily, Trentino and Umbria. The programme was vast and included the unfolding of the following seminars: Aria, Acqua, Terra, Fuoco (Air, water, earth, fire**),** I values nei team **(**Values in teams**),** Donne che fanno Squadra: tecniche di Team Coaching per il superamento degli stereotipi di genere (Women in the team: coaching techniques for overcoming gender stereotypes), Team Coaching in azione: 2 applicazioni practiche (Team Coaching in Action: 2 practical applications**),** Casi aziendali di Team in attività (Case studies – teams in activity), Il Ritmo Musicale del Team Coaching (Musical rhythm of team coaching), La gestione dei conflitti: team coaching come strumento di support alla genitorialità (Conflict

management: team coaching as a parenting support tool), Team Coaching per sviluppare Agilità e Digital Mindset nei team (Team Coaching to develop team agility and digitization) , Il Team: fatto rechiave di successonelle PMI (Team: key factor for the success of SMEs), Team coaching: construction insieme (Team training: let's build together**),** IL TEAM: JUNIOR E SENIOR Innovazione e Tradizione, come strutturare un percorso di evoluzione per il raggiungimento degli obiettivi aziendali (TEAM: JUNIOR AND SENIOR Innovation and tradition, how to structure an evolution path to achieve business objectives), Il lavoro in Team nelterritoriosul mare e le sue imprese (Team work within companies with activity in the maritime field), I Valorinel team (Team Values), Team Coaching: consolidation las quadra facendo irisultati (Team Coaching: Strengthening the team by achieving results). (ICF Italy)

From 25 to 26 October, ICF Italy also organized XVI Conferenza Nazionale "Coaching oltre il tempo"- the 16th National Conference "Coaching Beyond Time" in Florence, which aims to create a new format that offers members and all those interested in coaching an opportunity to meet, reflect and learn in a stimulating and creative space. (XVI ConferenzaNationale)

In Italy, as well as in other countries,ICF organizes the Coaching Day event which, in 2019, took place in Milan on 14 September, where 120 people attended. ICF has an important collaboration with the academic community in Italy. On 8 July, at the University of Cagliari, the seminar "Gliobiettivi e la leadership personal" was held, an event dedicated to university students who want to become successful leaders and to find out what strategies can help themachieve theirgoals. (ICF Italy)

Associazione Italiana Coach Professionisti (AICP), another entity active in the field of coaching, is also present in the public space. In 2019, on 22 November, the 9thNational Forum AICP (IX Nazionale Forum) was organized in Rome. Within the forum, experiences were shared and coaching projects were presented in the world of business, sport and life. The event was open to the public and included the participation of both professional coaches and coaching clients and users. Still in 2019, on 21 March, it organized the 9thAICP Congress (IX Congresso AICP). On the research side, AICP collaborates with l'Università Sapienza di Roma (Sapienza University of Rome). The first study on the training efficiency in Italy is envisaged, which is to be completed within two years. The aim is to measure the impact of coaching on the following variables: anticipation, self-regulation, self-reflection, learning, resistance, flexibility and self-awareness. Coaching clubs were formed in each region of the country, whose members meet once a month to share experiences with other members. Each club has the opportunity to organize training events and seminars in order to promote coaching in the assigned area. (AICP)

The Society for Coaching Psychology Italy (SCPI) was founded in 2011 with the aim of promoting, developing and spreading coaching psychology in Italy. The intention is to promote the development of a professional community of coach psychologists, who can actively contribute to the process of balancing the coaching supply and demand in Italy. SCPI is an international affiliate of the International Society for Coaching Psychology. (SCPI)

Bussola & Timone (B&T) is a service offered by SCP Italia to its members, designed to guide and develop the skills of the coach, in accordance with the key principles of the association. La Metavisione is a program that has been implemented with the aim of accelerating and strengthening quality and excellence over time and is aimed at association members. (SCPI)

The Organizational Coaching Psychologist (The OCPst) is an advanced training course conducted in partnership with L'Universita Europea di Roma. The course is a unique proposal in Italy that aims to meet the needs of internal and external professionals to develop skills for the design, implementation and use of individual and group coaching processes and services. The participation in the course requires an investment of EUR 2 900. (Universita Europea di Roma)

The Italian office of TPC Leadership started its activity in 2011 and is based in Milan. The organization is recognized for its long-term relationships with its clients and for co-creating unique solutions for leaders, organizations and teams with them. Among other things, the TPC Leadership Italia team offers team coaching and executive coaching services in several languages: Italian, English, French, German, Polish and Romanian. (TPC Leadership)

The School of Coaching has been operating in Italy for 17 years and specializes in providing business coaching services. The stated mission is to spread business coaching in society. The organization is an EMCC partner at European level. During the course of its work, the organization

provided services to more than 400 beneficiaries through 15 attested shells. Courses offered by SCOA include: Programma per Senior Practitioner in Business Coaching, Master di Management Constellation, Team Coaching Certificate, Corso di abilitazione alle carte flowknow, Supervisione, I basilari dell 'Effective Business Coaching, Introduzio nella Management Constellation. (SCOA The School of Coaching)

3. Research methodology

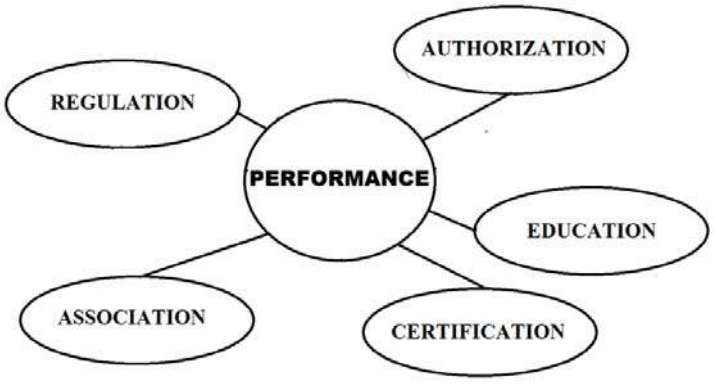
In order to carry out the research within this paper, the QCA (Qualitative Comparative Analysis) method was used. The main purpose of the QCA method is to model the result to be explained as a result of the different combinations of causal conditions. Thus, the QCA method becomes an appropriate choice in research situations where: there are hypotheses regarding the need for sufficientconditions, the number of studied cases and the quality ofthe existing data are too small to apply common statistical techniques, the researcher has good case knowledgeand wants to use them throughout the research process and the key conceptshave been precisely defined.(Schneider and Grofman, 2006). Thus, the gaps between qualitative and quantitative analyses are eliminated. (Rihoux and Ragin, 2009). The data was processed using the fsQCA software.

4. Findings

The study aims to highlight which of the elements defining the performance of coaches and mentors influences the clients' satisfaction on italian labor market.

The conceptual model is identified in Figure 1. Among the previous conditions on italian labor market we have included: regulatory need, authorization and affiliation of trainers and mentors to an accredited experts' corps or body, education level, certification level and membership to an organization or association. In a first stage, we shall perform the testing by using fsQCA to determine to what extent cumulative history conditions influence the performance parameter, but subsequently, the separate influence of each prior condition.

Figure no. 1. Conceptual model



Source: Figure designed by the authors

A questionnaire was used to collect the data, which was sent to persons working in the field on italian labor market. Social media resources were used for transmission. The sample chosen for analysis was of 100 people. To increase the study accuracy, only those questionnaires whose respondents have at least 5 years of practice and who spend more than half of their working time coaching or mentoring were considered for analysis. In the end, a total of 32 questionnaires were validated for processing.

The calibration of the results was achieved by correlating the values from the Likert scale with scores set in the range of the fuzzy set from 0 to 1, according to the QCA methodology, thus resulting in Table No. 1.

Table no. 1. Scale calibration

Fuzzy set value	Likert Scale Correspondent
1	Total agreement
0.75	Agreement
0.5	No agreement nor disagreement
0.25	Disagreement
0	Total disagreement

Source: Table designed by the authors

We subsequently defined the variables:

- Reg –need for regulation in general,
- Aut – regulation on the obligation to authorize and affiliate trainers to an experts or accredited body of activity,
- Edu – regulation on the educationlevel,
- Cert – regulation on the certificationlevel,
- Aso – regulation on affiliation to an organization or association.
- Perf – dependent variable
- Rez to highlight the calculation result of the value of the fuzzy sets of causes in the conceptual model through the relationship: Rez = fuzzyand (Reg, Aut, Edu, Cert, Aso). The "fuzzyand" function returns the minimum of the analyzed variables.

Table no. 2. Calibrated fuzzy sets for the identified cases

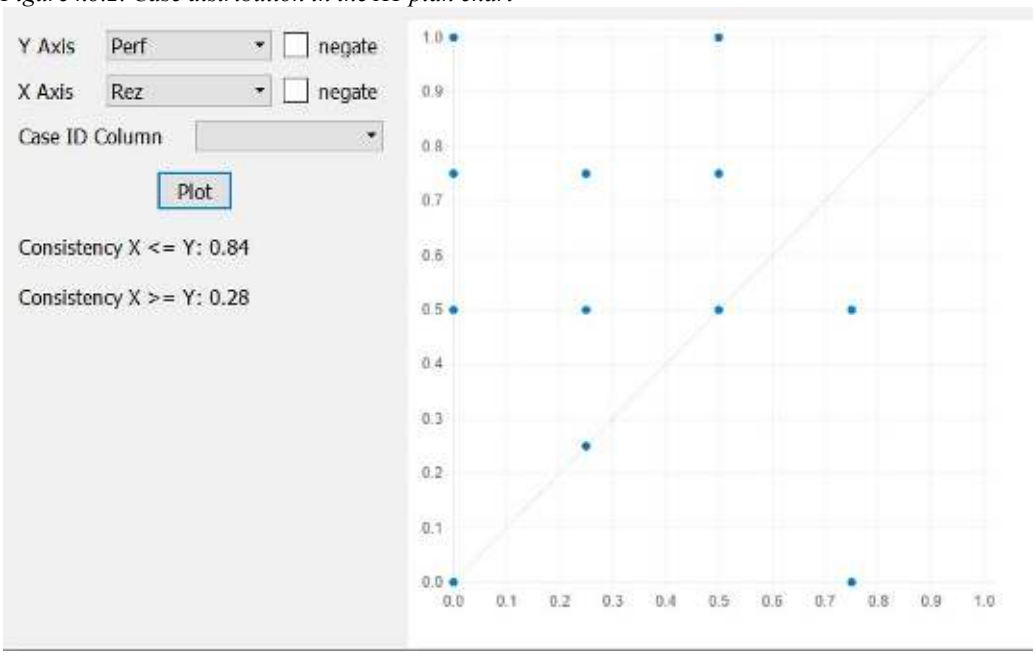
Case	Reg	Aut	Edu	Cert	Aso	Perf	Ground
1	1	0.5	1	0.5	1	0.5	0.5
2	0.5	0.75	0.5	0.5	0.75	0.75	0.5
3	0	1	0.75	0.25	0.75	0.5	0
4	0.75	1	0.75	1	0.75	0.5	0.75
5	1	0.25	0	1	0.75	0	0
6	0.25	0.75	1	0.25	0.75	0.75	0.25
7	0	1	1	0.5	1	0.75	0
8	0.5	1	0.75	0.5	0	0.75	0
9	0.5	1	0.75	0.5	0.5	1	0.5
10	0	0	0.75	1	1	1	0
11	1	0.5	0.25	1	0	0.75	0
12	0	1	1	1	0.75	0	0
13	1	1	1	0.5	0.75	1	0.5
14	1	1	0.25	0.5	0	1	0
15	0	0.25	1	1	0.75	0.75	0
16	0.5	1	0.5	1	0.5	0.5	0.5
17	0	1	1	0.75	0.75	0.75	0
18	1	0	0.75	1	0.75	0.5	0
19	0.75	1	0.75	0.5	0.75	0.75	0.5
20	0	1	0.75	1	0.75	0	0
21	0	0.5	0.75	0.5	0	0.75	0

22	1	0	0.25	0.5	1	0.75	0
23	0.5	1	0.25	0.5	0	0.75	0
24	0.25	0.25	0.25	1	1	0.25	0.25
25	0.75	1	0.5	1	0.25	0.5	0.25
26	1	0	0.5	1	0.75	0.5	0
27	0.25	1	1	0.5	0.75	0.75	0.25
28	0.75	1	0.5	1	0.75	0.75	0.5
29	0.75	1	0.75	0.25	0.75	0.75	0.25
30	1	0.25	0.75	0	1	0	0
31	1	1	0.75	0.75	1	0	0.75
32	1	0	1	1	1	0.5	0

Source: Table designed by the authors based on data collected by the questionnaire

To begin with, we decided to test the fuzzy set consistency and coverage on the XY plane by using the "XY plot" function. The case distribution in the XY chart was made in Figure 2. The X axis is used to illustrate the values of the causal variable (Rez), and the Y axis highlights the values for the variable illustrating performance (Perf).

Figure no.2. Case distribution in the XY plan chart

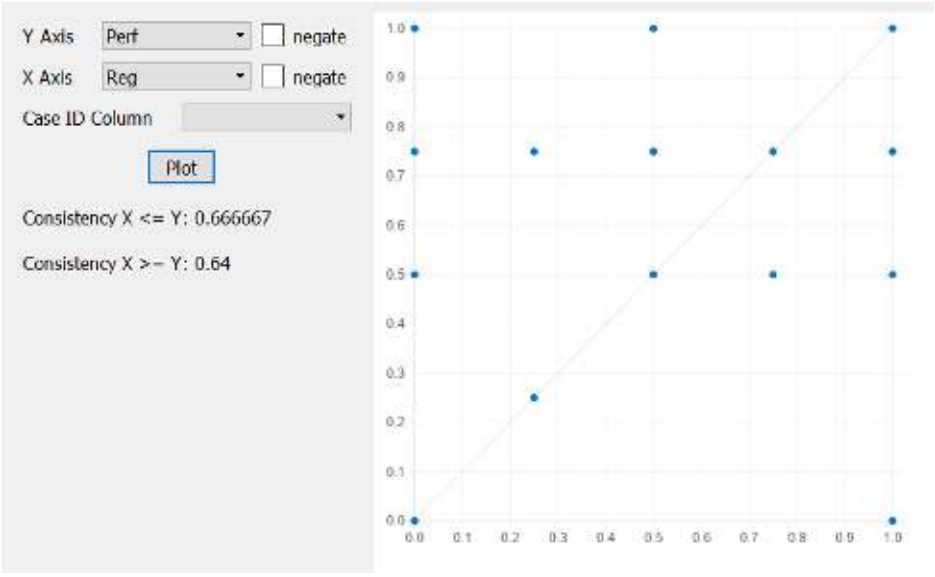


Source: Figure resulting from the use of the XY plot function in the fsQCA software.

In this case, a good consistency score was obtained for the X<=Y relationship, i.e. 0.84, but with a coverage of only 0.28. Therefore, only 28% of cases emphasize the result obtained for consistency. It is the lowest coverage score ever achieved.

The influence of the Reg background condition on the Perf performance variable is illustrated in Figure 3. The consistency score for the X<=Y relationship is 0.66 and was obtained in the case of an X>=Y coverage of 0.64. The formulated hypothesis is validated based on a relatively good score, but in 64% of cases. Since the results are above 50%, we can consider them satisfactory, but not entirely.

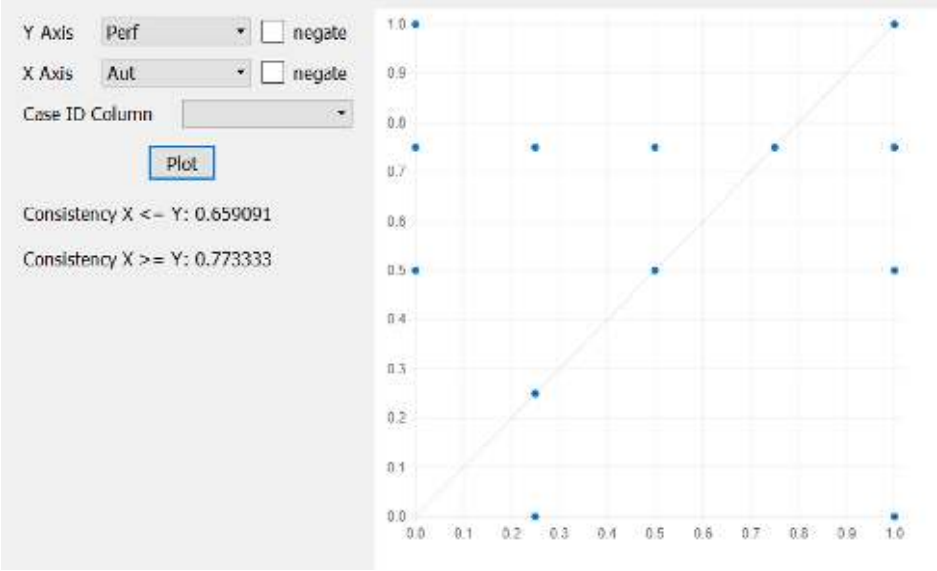
Figure no.3. Causality distribution between the Reg variable and the Perf result in the XY plane chart



Source: Figure resulting from the use of the XY plot function in the fsQCA software.

For the case when Aut involves Perf, the consistency score for X<=Y is very close to that obtained in the previous case, i.e. 0.65. The difference is that the result is validated in 77.33% of cases, the coverage result being 0.7733. Figure No. 4 highlights in detail the disposition of the cases.

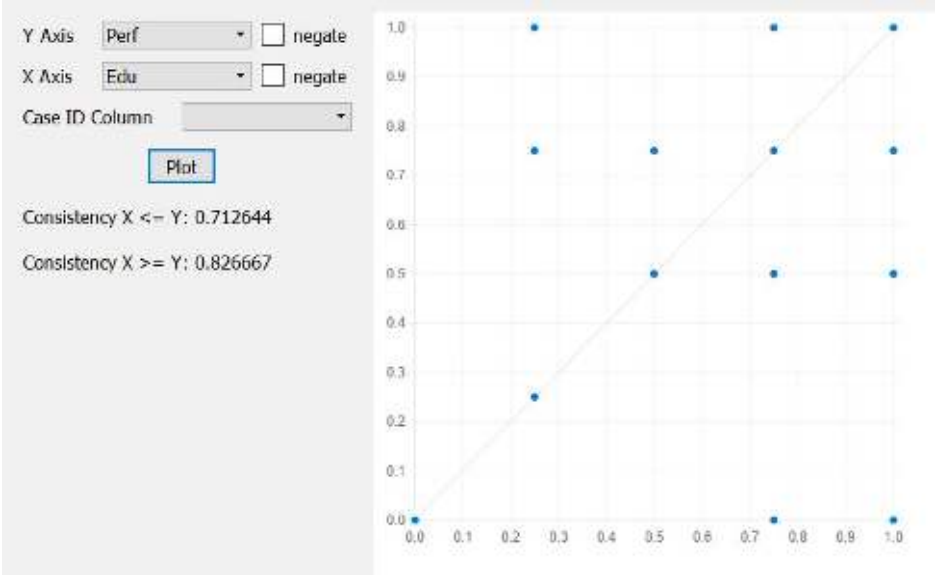
Figure no. 4. Causality distribution between the Aut variable and the Perf result in the XY plan chart



Source: Figure resulting from the use of the XY plot function in the fsQCA software.

In Figure No. 5 is illustrated the graph for the result obtained further to the application of the XY Plot function in fsQCA for the Edu case in relation to the Perf result. We can see that it is the best result obtained in the analysis for Italy. The consistency result obtained for the X<=Y relationship is 0.71 while the coverage result is 0.8266. The best coverage score was obtained, the result being validated in 82.66% of cases. And the result of consistency is a satisfactory one.

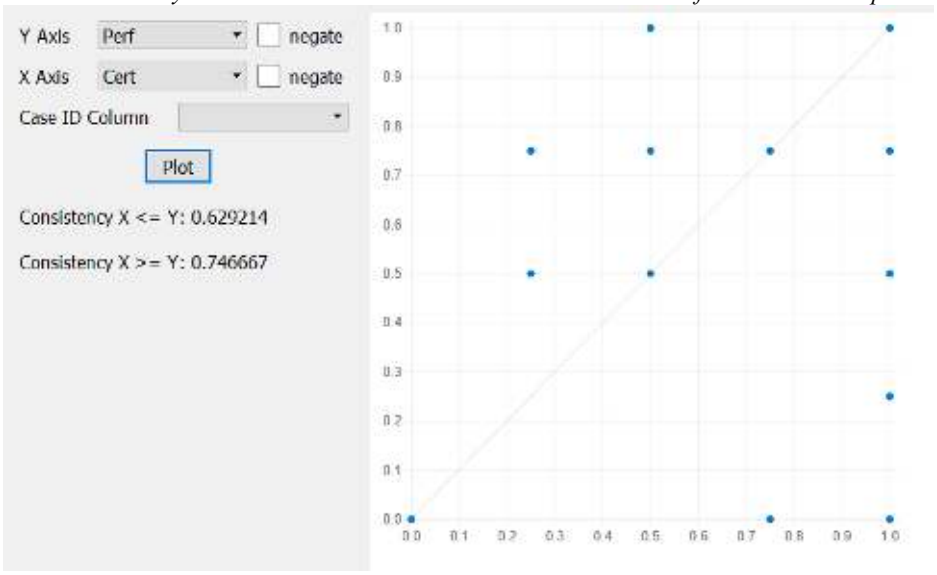
Figure no. 5. Causality distribution between the Edu variable and the Perf result in the XY plane chart



Source: Figure resulting from the use of the XY plot function in the fsQCA software.

The influence of certification on performanceis highlighted in Figure 6. The result obtained is a reasonable one. The Cert variable is a subset of the Perf variable with a consistency score of 0.62 and a coverage of 0.7466.

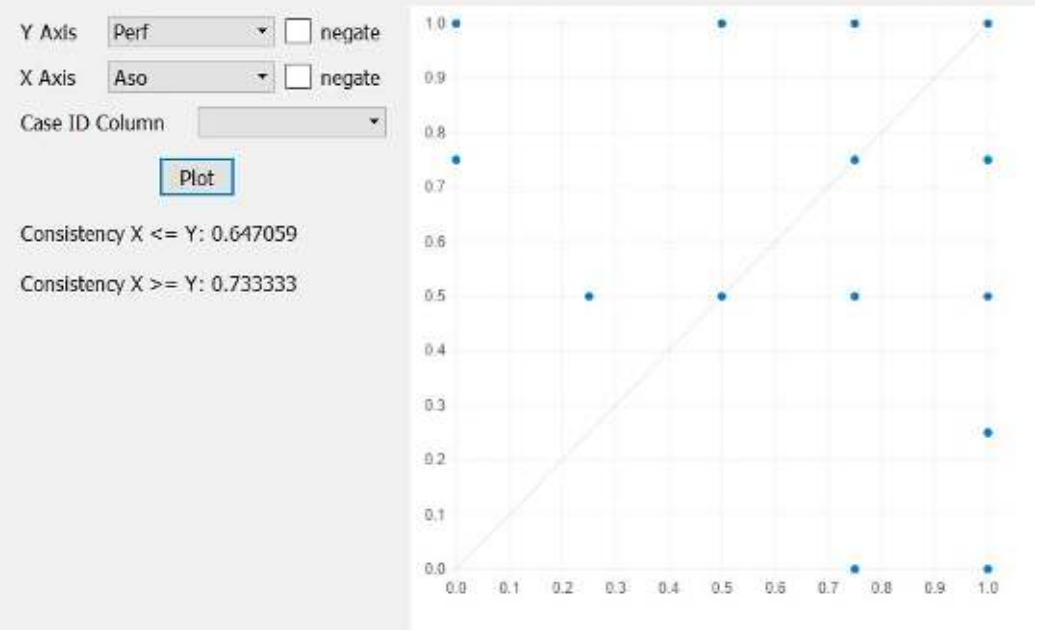
Figure no. 6. Causality distribution between the Cert variable and the Perf result in the XY plan chart



Source: Figure resulting from the use of the XY plot function in the fsQCA software.

The extent to which variableAso influences the Perf result is illustrated in Figure 6. We notice that the consistency score for condition X<=Y is a relatively good one, i.e. 0.64. The coverage score for the X>=Y relationship is 0.7333. We find that the consistency result is validated in a proportion of 73.33%.

Figure no. 7. Causality distribution between the Aso variable and the Perf result in the XY plane chart



Source: Figure resulting from the use of the XY plot function in the fsQCA software.

5. Conclusions

Looking at the data obtained on the human resources market in Italy, we find that this market has its peculiarities. The resulting consistency for the singular influences of each previous condition is in the range of 0.62 and 0.82 while the result for coatings is in the range of 0.64 and 0.82. We note that the lowest coverage, of 0.28, was obtained in the case of cumulative causality testing, but when the best consistency score was obtained. Through this study we identified the elements through which coaching is an effective tool for human resource development on italian labor market. Moreover, we identified the extent to which each identified element contributes to the development of human resources through coaching in Italy. The only conclusion we can draw from this situation is that apart from the causal factors identified by us there are other factors that have a significant impact on the influence of performance for italian coaching.

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Strategies to Improve the Quality Management of Hotel Services in Romania

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Abstract

Tourism is a basic component in a country's economy, but also in the human social whole. In this paper, we chose a hotel in Romania to implement a management improvement strategy. Hotel Rina Cerbul, is a 2 star hotel, located in Sinaia, Prahova county. Following a detailed analysis of the hotel management and the level of quality of the services offered by this hotel, a strategy was developed to improve the quality of the services provided. Regarding the establishment of the objectives of the hotel on all levels, we chose to use a more complex way of establishing all the activities carried out within the hotel in order to carry out a complex examination that would allow to fully detach its fundamental objectives. Following a general evaluation of the hotel, with the help of the EFQM model, the objectives of the strategy to improve the hotel's quality management system were established.

Key words: quality, management, tourism, strategies, hotel services
J.E.L. classification: L1, L8, Z3, M5

1. Introduction

The success of any business is determined by the way the customer perceives the quality offered. Therefore, the activity of any organization is aimed at knowing the requirements of the modern consumer, which is increasingly demanding. The quality of services is the basic criterion in choosing a hotel. Thus, every business must be supported by a policy aimed at consumers, to meet and anticipate their needs.

Tourism is a basic component in a country's economy, but also in the human social whole. Over time, tourist services have become the central component of tourism, so special attention has been paid to tourism services companies, but especially to hotel units and factors that may influence the competitiveness of these units. In the age of the global competition environment, when there are a multitude of products, services and replacement destinations, understanding the term quality is not only a problem to be solved but is seen above all as an opportunity for competition. This has led to increasing concerns about adopting new concepts and approaches to increase the quality of hotel services, while optimizing the needs of tourists. In this sense, the main way to improve the quality of services in the hotel industry is through quality management.

Studying the needs of consumers is a condition for achieving quality services, for achieving competitiveness through a strategy focused on quality. This is where quality management comes in, which aims for long-term success by meeting customer requirements and gaining benefits for all members. The management system within the hotel industry must be based on the objectives pursued by the hotels, on the services offered by them and on the practices used. Thus, although quality management may vary from unit to unit, its purpose is always the same: effectiveness.

The provision of good quality hotel services requires the unit's ability to control its activity at any time, as well as the ability to solve problems that may arise in the course of its activity. In the hotel field, both obtaining as well as maintaining and improving the quality of services is a difficult aspect to achieve, so the continuous development of quality must involve all groups of resources, from highly trained staff to modern materials and procedures for providing services.

Given that customer requirements are constantly changing, being influenced by society, their own desires or other environmental factors, the strategies used in the field of quality management in the hotel industry must keep pace with these changes. In this sense, not only fidelity to the provision of a quality service is sufficient, but it is necessary the continuous development, the permanent improvement and renewal of the quality of the offered services, as well as the recognition of the quality of the services by the consumer. This is due to the fact that the quality factor implies a comparison between the service provided and the one expected by the consumer.

The quality of services is considered substantial when it comes to defining organizational success. The winning strategy is to provide customers with excellent quality services. In the current environment, the need to improve the quality of services in the hotel industry in Romania has come into the spotlight due to the tough competition in which hotels are trying to attract their competitive advantage through the human factor.

The purpose of this paper is to show the possibilities and specifications for improving the quality of services in the hotel industry, through quality management, which has become an essential part of the management of hotels that want to succeed. This study shows the possibility of implementing programs to improve hotel services in order to meet the requirements and needs of customers.

2. Literature review

The quality of services is considered the lifespan of the hotel and the core of service management. The quality of services is related to customer satisfaction, and customer satisfaction is associated with the intention to review customers. If an effective image is portrayed to customers, it will create a competitive advantage for the hotel. (Ryu et al, 2008). As a result of the service development process, three parts have emerged that form the quality of services: the structure of the service process, the system and the resources of the service.

Customer satisfaction plays an important role in the hotel's performance. In the hotel industry, as the service has direct interactions with customers, customer satisfaction is the means of measuring the quality of services in hotels.

The performance of the hotel is directly related to the improvement of the quality of services. There is a significant relationship between improving the quality of services and changing hotel performance. High-level development tools are used to the satisfaction of more users in terms of service and quality. The key element is to retain and attract customers. Customer satisfaction plays a mediating role in the perceived value of the hotel and in the behavioral intention. Thus, both the public and private sectors have approached a customer-oriented quality management. (Un et al, 2009)

In order to improve hotel services, diversity and complexity must be used during the processes of attracting customers and meeting their requirements. Thus, the quality of hotel services must include all those procedures that determine the satisfaction of customers. These procedures must have the following aspects (Berry et al, 1991): (1) service culture: the hotel must have a management control over the achievement of the service culture; (2) kindness - within the tourist units a culture of service must be developed, based on a common responsibility of the employees, on a systemic approach to the provision of services, an approach that has as a starting point the satisfaction of the clients' needs; (3) standardization - the provision of services must be based on clearly defined principles and procedures that allow the control of the obtained results and the improvement of the activities where it is the case; (4) expertise - the staff must have professional, interpersonal skills, an attitude in support of the client; (5) complaints - the evaluation of customer satisfaction must be a continuous process that results in the permanent revision of quality standards at the level of the contemporary service consumer, much more informed, more receptive to new, more demanding (Gustafsson et al, 2006).

Quality in services depends on several factors, such as the material basis, the preparation of human resources, the exigency factors of the service consumer. Special attention must be paid to the human component, Romania occupying not such a leading place in the international rankings in terms of the quality of training of human resources in tourism. This situation requires a sustained effort of stakeholders - educational system, business environment, managers, and entrepreneurs to develop a strategy for training and development of tourism employees, based on motivation, satisfaction, behavior of individuals towards performance and economic activity in general.

Professional motivation is the will to make an important effort to achieve the objectives set by the organization, a will conditioned by the ability of management to meet a personal need (Grahamand et al, 1995).

Motivation is conditioned by three key elements: effort, business objectives and needs.

The idea of effort corresponds to a certain degree of work intensity. If a person feels motivated then he/she will work harder and for longer, getting even more involved in the task he has to perform. This effort must be channeled correctly towards achieving the company's objectives by carrying out quality activities. Motivation must be seen as a process of meeting needs. Need designates an internal state of the individual, characterized by the desire to achieve a goal. An unmet need creates an imbalance, a tension that causes the individual to act in order to restore balance. This imbalance determines a behavior of searching for individual, particular objectives, which by achieving them satisfy the need, reducing the tension.

To reduce this tension, the employee makes an effort proportional to the intensity of this tension. If this effort allows the need to be met, it simultaneously reduces the tension. From a professional point of view, this effort to reduce stress must be in line with the company's objectives.

If individual needs are incompatible with the company's goals, the efforts of individuals risk going against the interests of the organization.

A motivated employee is energetic and enthusiastic. He works well and is constantly looking for new responsibilities, helping to support the morale of the team he belongs to.

The material component influences the quality of tourist services through the demand for comfort, functionality, aesthetics, as well as ergonomic qualities of the equipment provided by certain units. One of the most important factors influencing these requirements is the level of technicality, which determines the level of comfort and quality of services. The higher the technicality, the better the service, as it offers heating and sound insulation, various room facilities, such as reliable installations, which lead to both lower maintenance costs and fewer complaints.

Another important element of quality is the sizing and organization of different spaces which must include aspects regarding the flexibility of the offer, in order to be able to offer complementary services, such as the organization of congresses and conferences, as well as other events.

In the case of Romania, which has a diverse tourism potential, with authentic components, the transition to the use and improvement of service quality standards would be an element of differentiation and would increase the competition of the Romanian tourism product. This has also been demonstrated by international research studies that consider Romania an interesting tourist destination.

3. Research methodology

Research methodology is the foundation of scientific research and is embodied in a set of principles and research methods that contribute to obtaining valid results from the research undertaken (Marczyk et al, 2005, p.4). It has a direct impact on the processes of validation and generalization of a study and plays a very important role in the development of knowledge related to the business environment.

Most countries, which did not perceive the importance of tourism development and the transition to a new approach to the quality of customer service, have made a complex system of standards in the hotel industry at the national level, which requires the service to be characterized by criteria such as: reaction, creditworthiness, curiosity, flexibility, etc.

So, we chose a hotel in Romania to implement a management improvement strategy. Hotel Rina Cerbul, is a 2 star hotel, located in Sinaia, Prahova county, which offers tourists double, triple rooms and apartments. Following a detailed analysis of the hotel management and the level of quality of

the services offered by this hotel, a strategy was developed to improve the quality of the services provided.

The strategy (Nicolescu et al, 2008) represents the defining element of the company's activity, because it specifies the directions in which the company is oriented to achieve the proposed objectives and the general way in which it carries out its activity. The formulation of the company's strategy is the indispensable final act of the laborious process that has a high responsibility and offers the possibility of measuring the managerial capacity of strategic decision makers. The formulation of the strategy reflects the clarity of the company's top management conception regarding the major coordinates of its activity and the performances to be achieved.

The elaboration and implementation of a strategy (Porter, 1980) to improve the management of a company involves a process structured in three stages within which several phases of this process take place. These refer to: (1) the substantiation of the strategy; (2) elaboration of the strategy; (3) implementation of the strategy.

The first operational component of the strategy is the strategic objectives. They express the major goals of the organization and materialize new economic, social, technical, managerial dimensions of hotel performance. The strategic objectives represent the starting point in outlining a plan for improving the quality of hotel services and must target all its procedural and structural components.

Regarding the establishment of the objectives of the Rina Cerbul hotel on all levels, we chose to use a more complex way of establishing all the activities carried out within the hotel in order to carry out a complex examination that would allow to fully detach its fundamental objectives.

The EFQM model is a tool for conducting a complete, systematic and ongoing examination of an organization's activities and results, by comparing it with a performance model called a self-assessment model. The EFQM model is based on the principle of customer satisfaction, staff satisfaction and integration into the life of the community, these being obtained through the function of leadership, policy and strategy, personnel management, resources and their processing. All this ultimately leads to excellent operational results.

4. Results

Following a general evaluation of the Rina Cerbul hotel with the help of the EFQM model, the objectives of the strategy to improve the hotel's quality management system were established.

Table no. 1. Strategic objectives to improve quality management

	EFQM RESULTS
LEADERSHIP	Mission development, vision, values and ethics - play the role of models of the culture of excellence;
	Ensures that the hotel management system is continuously created, implemented and improved;
	Promoting specific strategic activities to improve customer / beneficiary relations;
POLITICS AND STRATEGIES	Creating policies and strategies based on information obtained by measuring performance, research, learning and related external activities;
	Continuous improvement of the approach technique of the market and customers;
PERSONAL	Developing the company's strategy through the active involvement of employees;
	Organizing trainings;
RESOURCES	Improving conditions and facilities;
	Modernization of the offered conditions;
PROCESSES	Use appropriate methods to implement change;
	Forming a strategic plan based on innovation;
RESULTS IN RELATION TO CUSTOMERS	Improving the conditions offered;
	Implementing new facilities;
	Implementing customer transport to different destinations;
	Application of questionnaires to measure customer satisfaction with the quality of services provided;

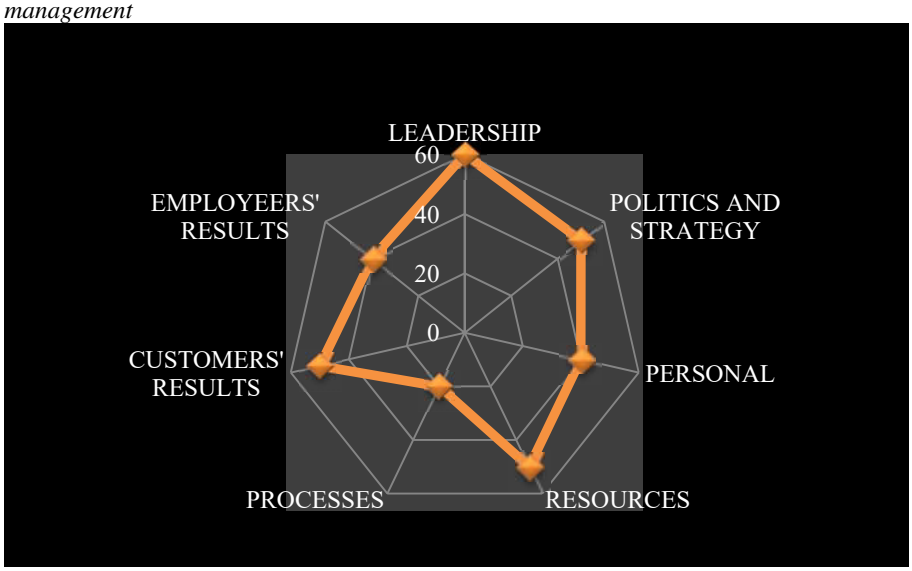
RESULTS IN RELATION TO EMPLOYEES	Permanent request for feedback from employees;
	Paying more attention to the requests made by them.

Source: made by the author based on the EFQM model

Following the application of the EFQM method in order to establish the current situation of the Rina Cerbul hotel and to identify the structures in which it is necessary to act the improvement strategy, we obtained the following radar.

The correlations between the elements of the EFQM Model, which are cause-effect relationships, are really the ones that make the whole quality management system work through better results, sustainable success and adaptability. Thus, the hotel manages to maintain its position on the market.

Figure no.1. Radar indicating the structures in which to act through the strategy of improving quality management



Source: done by the author

Table no.2. How to achieve the objectives proposed through the Balance Scorecard method

	OBJECTIVES	MEASUREMENTS	TARGET	INITIATIVE
Financial	Improving the efficiency of the services offered by investing in customer relations;	Cost, unity, efficiency	20% Improvement	Detailed monitoring
Clients	Implementation of new facilities; Application of questionnaires	Quality / price ratio; Expectations / satisfaction ratio;	Improving quality by 30% Increasing customer satisfaction by 20%	Monthly monitoring; Monthly monitoring;
Internal process	Increasing employee satisfaction; Establishing long-term goals	Work / reward ratio; Objective / time ratio	Increases efficiency by 20%; With 10% more objectives / year;	Monthly monitoring; Annual monitoring;
Learning and development	Vocational training	Organizing courses	20% more training	Monthly monitoring

Source: made by the author based on the Balanced Scorecard method

To improve and achieve the general objectives listed above, the Balance Scorecard method was used as an improvement method. The Balanced Scorecard (BSC) is a management system and a strategic planning tool, widespread in business and industry, in public state institutions, as well as in non-profit organizations. BSC improves external and internal communication. In addition, it monitors the performance of an organization based on its strategic objectives. The table below shows the Balance Scorecard method.

Establishing the necessary resources to achieve the proposed objectives is a very important step in the process of developing the strategy for improving quality management in the hotel. There is a high probability that major difficulties will arise in this process, especially in terms of customer satisfaction and connection to the culture of the organization.

Table no.3. The time necessary to achieve the proposed objectives

Objective/action	Time to complete it
•Improving the quality of services provided	1 year
• Implementing new facilities	1 year
• Increasing customer satisfaction	6 months
• Employee satisfaction	6 months
• Professional training	2 months

Source: made by the author based on the Balanced Scorecard method

The implementation of the strategy (Ansoff, 1980) is the last stage of the process of improving the company's management and is a complex stage that requires a rigorous organization. In this sense, several steps must be taken: (1) preparing the implementation of the strategy; (2) complete or partial remodeling of the management system of the organization; (4) operating the planned strategic changes; (5) supervising the implementation and evaluating the results of the strategy; (6) the design and operationalization of certain improvements; (7) motivation of stakeholders.

Table no.4. Implementing the strategy

Measure	Resources necessary	Person in charge	Application period	Observations
Improving the efficiency of the services provided	-resources needed to purchase new furniture; - resources needed to invest in customer relations; -trained staff.	-managers	year	-use of new operating technologies; - purchase of modern furniture.
Implementing new facilities	- purchase of ergonomic equipment	-managers	6 months	-raising the level of technicality
Increasing customer satisfaction	-trained staff; -implementing new facilities; - application of opinion questionnaires	-managers -staff	6 months	-establishing a necessary order of processes;
Employee satisfaction	-resources needed to increase the salary income of employees	-managers	6 months	- increase bonuses; - salary increases; - motivation through bonuses for staff involved in improvement ideas
Professional training	- resources necessary for training	-managers -staff	6 months	- organizing learning courses; - periodic evaluation of the knowledge acquired by employees

Source: done by the author

In order to implement the strategy for improving the quality management, Rina Cerbul Hotel has developed a program for preparing and implementing the strategy.

The effective application of the changes necessary to improve the quality management is achieved by finalizing and operationalizing the strategy. The operationalization of the strategic changes implies the realization of some fundamental changes both in terms of the procedural and structural components of the hotel. Improving the quality management within the Rina Cerbul hotel by operationalizing the proposed strategic changes, aims at the following aspects:

Table no.5. Operationalization of the strategy for improving quality management

Aspects	Operationalization
TECHNICAL	the use of new operating technologies;
	purchase of new furniture;
	improving the facilities offered, by improving the communication network and the internet;
	implementation of customer awakening systems;
	improving the visibility of the hotel in the online environment;
	measuring customer satisfaction;
	providing customers with foreign exchange and fax / xerox services;
ECONOMICAL	ensuring the material resources necessary to improve the quality of services;
	promoting a new principle of customer relationship management;
HUMAN	increasing the salary income of employees;
	organising trainings;
MANAGEMENT	mission development, vision, values and ethics play their role as models of the culture of excellence;
	promoting specific strategic activities to improve customer relations;

Source: done by the author

As we can see, the implementation of strategic changes is a complex process, easy to achieve theoretically, but much more difficult to implement. The success of the managerial strategy of quality improvement consists in knowing and mastering all the variables that may appear along the way.

5. Recommendations

Strategies and policies (Stănescu et al, 2009) developed by managerial mechanisms play an essential role in the design and substantiation of the activities that any hotel carries out. In the essential realization of the forecast, strategies and policies mark the development, of their content depending, most often decisively, the efficiency of the interface compared to other accommodation units, the extent to which they maintain and amplify the occupied market segment and the profitability obtained. Therefore, it is recommended first of all to implement a quality management system in each accommodation unit and then, its development and improvement through various strategies.

Regarding the Rina Cerbul hotel, but also other hotels interested in increasing their value on the market and the number of customers, they must define very well their goals and objectives, both in the long term and in the short term. Strategic managerial thinking is what discerns and defines the goals and objectives of the society in the long run and the means to be used to achieve them.

6. Conclusions

Quality must be the main goal of a hotel unit. The delivery of quality services can only be possible when a customer is satisfied and his expectations have been met. Therefore, the client must be the mainstay after which any hotel guides the quality of its services. As quality is paramount for any

accommodation unit, the implementation of advantageous strategies for improving quality management is a very important goal for any hotel, despite the difficulty involved.

In conclusion, in order to implement and apply a strategy for improving the quality management of a service-providing unit, the policy must include a set of long-term objectives related to all activities carried out, based on available resources. All major actions to be taken and the main managers and executors, as well as efficiency indicators, must also be established. Every organization, regardless of its size or object of activity, must have its own strategy that it can continuously improve in order to improve the quality of the services offered and to occupy a decisive position in the market.

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Ways of Manifesting the Decision-Making Authority at the Level of the Organization

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Abstract

The emergence of the New Public Management meant a challenge addressed to the traditional model of public administration, the decentralization of the managerial authority, being one of the characteristics of the new current.

The paper follows the possible forms of structuring the decision-making authority, at the level of an organization, through centralization or decentralization, types that can be practiced by organizations, having different dimensions.

Briefly, opinions on the significance of the process of concentrating power, in case of centralization, or its dissemination, in the context of decentralization, are shown, the choice of one of the variants, being conditioned by elements that can influence the activity.

For each of the two models, there were given evidence of both characteristic features and possible advantages and disadvantages as a result of their practice, which are also relevant to the aspects that differentiate them.

Knowing the distinctions that manifest, the advantages and possible risks that each model implies, is of particular interest in the business world, in the context of competition and other factors that require the optimization of decisions.

Key words: management, decision-making authority, organization, centralized, decentralized, managers.
J.E.L. classification: D73; I22; I23; I25

1. Introduction

The form of structuring the decision-making authority, at the level of an organization, can be centralized and, respectively, decentralized. The two types, which can be practiced, as the case may be, by large or medium companies, but also some small enterprises, are also relevant for the challenges addressed to the traditional form of public administration, with the emergence of the New Public Management, decentralization of managerial authority being one of the characteristics of the new current.

Both the formula of power concentration and its dissemination each reflect the consequences of the modality of authority exercise, concerning the way of operations coordination, the level of taking responsibilities, the ability to adapt to market needs, employee motivation, the effects on organization costs. The form of organization is reflected in the efficiency of the use of the resources available to the organization, the quality of the goods and services achieved.

The paper aims to present possible variants of structuring the activity of an organization, of the features that characterize them, signalling the advantages and disadvantages of their practice, relevant, at the same time, regarding the aspects that distinguish them.

2. Theoretical background of the forms of structuring the authority

2.1. Centralization

The meaning of the concept of centralization refers to the concentration of the programming and decision-making action at the level of the central management of the organization or of the group

of managerial personnel that coordinates the activities of the sectors, departments. (Arkupal Acharya**)**

By virtue of the form of centralized organization, traditionally practiced, the central management is account for exercising control over activities up to the last link, on the hierarchical scale and, implicitly, the responsibility for the distribution of tasks among employees.

The concentration of the authority supposes, at the same time, the non-involvement of the subordinates in the decision-making, to these being account for attributions of fulfilling the functions incumbent on them and, respectively, of the received orders. (Surbhi, 2015)

Fayol expresses, shortly, the significance of the forms of exercising authority in an organization "everything which goes to increase the importance of the subordinate's role is decentralisation and everything which goes to reduce it is centralisation."(Fayol quoted in Arkupal Acharya, p.1)

2.2. Decentralization

The process of decentralization of authority, echo of the adoption of New Public Management reforms, manifested itself in the context of external competition pressures that require faster decision-making, with some organizations opting for this form of manifestation of authority.

Decentralization, the opposite concept to centralization, consists in disseminating the authority and responsibility of decision-making from the "top" level of the organization, to the middle or last level. This form of extension of the delegation of authority to subordinates go through the hierarchical scale of the organization up to the lowest level. (Surbhy, 2015)

The process provides the managers of the operative divisions with favorable conditions for obtaining superior results, as well as the increase of independence in organizing and carrying out the activity (Surbhy, 2015).

According to the definitions formulated by specialists, decentralization:

- "[…] refers to tire systematic effort to delegate to the lowest levels all authority except that which can only be exercised at central points." (Louis A. Allen quoted by Smriti Chand, p.1);
- "[…] is simply a matter of dividing up the managerial work and assigning specific duties to the various executive skills." (Newman, Summer and Wairen quoted in Smriti Chand, p. 2).

The preference for one of the options for structuring an organization depends on elements that can influence its activity, such as the culture and environment in which it evolves, strategies adopted in the short or long term, relations with customer, managerial technique used.

At the present stage, no type of organization is known in the fully centralized or decentralized form, respectively, in fact, practicing a mix of the two models (Arkupal; Surbhy, 2015).

The two forms of functioning of a unit, through centralization or decentralization, assume the emergence, both of some benefits but also of some possible risks, resulted in the development of the activity.

2.3. Advantages and disadvantages of the ways of structuring an organizations; distinctive elements

In the following, for each of the two forms, some opinions are presented regarding the advantages and respectively the possible disadvantages as a result of practicing these ways of structuring an organization, relevant, at the same time, and regarding the aspects that distinguish them.

Table no. 1 Particularities of the form of structuring the organization - centralization

Advantages	Disadvantages
1. Uniformity and consistency The vertical, hierarchical character of the communication flow, the centralization of decision-making and the exercise of control, associated with the use of the same equipment models, at departmental level, ensures the uniformity of actions, reflected in the consistency of performances.	**1. An overload of managers** The high degree of authority and the multiple responsibilities that account for the manager in the organization, diminish the availability of engaging in major issues, of perspective, for the efficiency of organization.
2. Concentration of authority in decision making, unification of operations The centralization technique ensures the manager, authority in decisions-making and their clarity, unification of the organization's operations. The leader has the opportunity to make decisions, taking into account the requirements, in order to achieve the objectives, an important element for the maintenance and success of the organization, in a competitive environment.	**2. The risk of errors emergence** The concentration of the authorities at the top of management, without the involvement of managers from the lower levels, creates the possibility of errors emergence in the exercise of power, in situations where the managers do not have no sufficient skills.
3. A simple and clear structure In a centralized organization, there are usually met two levels: managerial and operational. **The first level** has the responsibility of decision making (work organization, resource allocation, procedures, etc.). **The second** is responsible for the execution of orders sent from the top management. Thus, the conditions for a good coordination of operations, a close supervision of the activity of subordinates are facilitated.	**3. Decreasing motivation in the unfold activity** In a centralized organization system, the managers at lower levels do not have the possibility to develop their personal skills, to have initiatives, their competences being limited to perform the tasks assigned, the situation being found in the case of other employees, too. This limitation of the possibilities of involvement in the activity, of manifestation of the personality, attracts the diminution of the interest and moral motivation of the subordinates.
4. Quality of work Conditions for a better quality of work, due to the standard procedures used at the level of the organization, of a close supervision of the employees, implicitly through the use of advanced techniques; it is important accumulation and strengthening the experience of employees are created.	**4. Difficulties in quick adaption to change** The competition requires the business environment, dynamism in decision-making regarding the activity of the sectors. In centralized organizations, the possibility to sustain a high pace is not guaranteed, being conditioned by the efficiency of management. Because a large part of the workload of managers is consumed to solve routine problems, the time given to some unscheduled decision-making is limited, what can negatively influence the competitiveness of the organization.
5. A pronounced coordination of operations The clear distribution of tasks between employees and their close supervision provide conditions for the good coordination of activities, eliminating situations of overlapping execution of several operations. From this perspective, the centralization is a recommendable formula for small organizations, with small businesses, because the manager can directly follow all the activities of the organization, an important aspect for the position held in competitive conditions.	**5. An inappropriate formula for the structure of large companies** It is not recommendable for organizations that develop large businesses and have branches in various locations, the communication of the decisions of the central managerial group having to go through the levels of the managerial hierarchy. The transmission of documents, from or to the central group, means consumption of working time and can lead to delays in decision making and, respectively, affect work performance.

6. Decreased costs The use of some standardized operating procedures, with a small number of levels and positions of management and, respectively, specialists create possibilities to decrease the costs of the organization, therewith benefiting from the competence and qualification of the organization's members .	

Source: processing from Arkupal Acharya, „What are the advantages and disadvantages of centralization of authority ?", http://www.preservearticles.com/201101143291/advantages-and-disadvantages-of-centralisation-of-authority.html; „Disadvantages of Centralization", Accounting-Management, https://accountlearning.blogspot.com/2013/05/disadvantages-of-centralization.html; „Advantages of Centralization", Accounting-Management, http://accountlearning.blogspot.ro/2013/05/advantages-of-centralization.html.

Table no. 2 Particularities of the form of structuring the organization - decentralization

Advantages	Disadvantages
1. Concentration of central management for perspective issues Through decentralization and the transfer of some responsibilities to subordinates, the management staff is relieved of the task of solving current activities. He thus has the possibility to focus on initiating important managerial activities, formulating policies and strategies.	**1. Difficulties in applying homogeneous policies** The dispersal of authority from the high level of management toward the functional management is a difficulty for establishing and applying some uniform procedures, as each manager has its own standards in policy making.
2. Improving the quality of decisions, speeding their adaptation The competencies granted to managers of departments or sectors and their direct involvement in the conduct of business, associated with the experience gained, improves the quality of decisions and accelerates their adaptation, eliminating hierarchical links.	**2. Coordination and control issues as a whole** The delegation of decision-making competence to the managers of the execution divisions of the organization reduces the possibility of coordination and control of the activity of the entire company, by the central management, existing the risk of some incompletely detailed reporting due to the widely dispersed authority.
3. Better adaptation to market requirements Ensuring the freedom of managers initiative, in the execution sectors of the organization, the decentralization offers the possibility of a better adaptation to market requirements, facilitating the diversification of products, the emergence of new products and services. Increasing the potential to meet market demands can increase the company's profitability.	**3. The burden of higher costs** Decentralization involves greater financial efforts because: • hiring qualified and competent staff to assume some responsibilities implies the need for adequate remuneration; • the presence of administrative staff, in each sector with production activities, sales leads to higher costs than in the formula of the centralized model; • the collection and processing of information in the conditions of division of the organization requires higher expenses than those generated by the processing of information at central level.
4. Promoting work motivation Increasing the responsibility and freedom of managers in activities management and supervising them increases the motivation and interest in increasing performance.	**4. Competition and risks in cooperation** The pressure to make a profit attracts the competition between the component sectors of the organization and the danger of deteriorating the good cooperation between the sectors and their managers, which can have unfavorable effects at

The executive sectors have the opportunity to use their own capabilities, to have initiatives, contributing to increasing the company's prospects. Louis A., Allen points out that "Decentralisation stimulates the formation of small cohesive groups. Since local managers are given a large degree of authority and local autonomy, they tend to weld their people into closely knit integrated groups.". (Louis Allen quoted in Smriti Chand, p. 4)	the company level. The situation may arise if the managers competing on the same market product proceed to reduce the price to increase sales volume, but the process may lead to a decrease in profit throughout at level of the entire organization.
5. Better working and communication relationships By the division of activities it is created the possibility of a better communication and relating between the processes of work and management, as a result of a continuous contact that can be maintained between the department managers and employees.	**5. Efficiency issues** Failure to cover the necessary of resources at the subunit level or lack of qualified and experienced staff can entail the decrease of the efficiency of their activity.

Source: processing from Louis A. Allen (1958) , "Management and Organization", Published by New York McGraw-Hill Book Company;
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3. Research methodology

The research methodology consisted in the study of some materials from the foreign and autochthon specialized literature, corresponding to the chosen topic, the processing of the selected ideas and the author's own interpretation.

4. Findings

The data presented highlight a number of aspects relevant to the performed study.

The particularities of the two ways of manifesting the decision-making authority are relevant for the elements that differentiate them and the effects they have on the activity of an organization. In the sense of the above, we can note situations, in which some elements constituting advantages of one of the structures may be risks in the case of the other and the reciprocal of the situation, risks that may become advantages, as seen in the tables below.

Table no. 3 Distinctive elements regarding the particularities of centralization and decentralization

Reference element	Centralization - advantages	Decentralization - risks
Costs	It creates opportunities to reduce costs.	It involves greater financial effort.
Uniformity	Homogeneity of procedures and consistency of performance.	Difficulties in unification procedures.
Coordination	The manager's authority in decision-making ensures the good coordination of operations.	There is a risk of reducing the possibility of coordination and control due to the dispersion of authority to sector managers.
Adaptation possibilities	Recommendable for small businesses.	Not suitable for small businesses.

Source: processing from Arkupal Acharya, „What are the advantages and disadvantages of centralization of authority ?", http://www.preservearticles.com/201101143291/advantages-and-disadvantages-of-centralisation-of-authority.html; „Disadvantages of Centralization", Accounting-Management, https://accountlearning.blogspot.com/2013/05/disadvantages-of-centralization.html; „Advantages of Centralization", Accounting-Management, http://accountlearning.blogspot.ro/2013/05/advantages-of-centralization.html;
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Smriti Chand, "Decentralisation: Meaning, Advantages and Disadvantages of Decentralisation", http://www.yourarticlelibrary.com/organization/decentralisation-meaning-advantages-and-disadvantages-of-decentralisation/25703/

Table no. 4 Distinctions between the decentralized and centralized structuring form

Reference elements	Decentralization -advantages	Centralization-risks
Manager's position	The top manager has the availability to devote time and effort to formulating policies and strategies.	The multiple responsibilities of the manager require him a lot of time to carry out current activities, to the detriment of prospective ones.
Quality and speed of decision making	Conditions to increase the quality and speed of tacking-up decisions are created.	The risk of decision errors of top managers who hold full authority.
Adapting to change	Flexibility and fastness in adapting to market requirements.	Has difficulty in decision-making quickly.
Motivation	Ensures the motivation, interest in increasing performance, by giving responsibility for decision making, to the lower echelons too.	There is a decrease in the moral motivation of subordinates because of limiting competencies and involvement.

Source: processing from Arkupal Acharya, „What are the advantages and disadvantages of centralization of authority ?", http://www.preservearticles.com/201101143291/advantages-and-disadvantages-of-centralisation-of-authority.html; „Disadvantages of Centralization", Accounting-Management, https://accountlearning.blogspot.com/2013/05/disadvantages-of-centralization.html; „Advantages of Centralization", Accounting-Management, http://accountlearning.blogspot.ro/2013/05/advantages-of-centralization.html;
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5. Conclusions

The distinctions between centralization and decentralization, respectively, the concentration of the activity at the level of a manager and its distribution to the lower administrative echelons, present a special interest in the business world. The emergence of extreme competition, which manifests itself both internally and externally, requires the optimization of decisions as well as the fastness in their choice (Surbhi, 2015).

The choice of the optimal variant for the organization depends on a series of determining factors for the efficiency and profitability of the company: the size of the company and its location, the existing competitive environment, its resources, but also on the organizational competence and the strategic vision of managers, the way of using resources.

Generally, the centralization is practicable, especially for small companies and decentralization is recommendable for the large ones, but it is possible that the way of structuring an organization do not belong strictly to one of the two forms, making a mix of them; thus, in an organization, there may be both central level controlled activities and competencies delegated, up to a certain level, to departments. (Arkupal, Surbhi, 2015).

It is necessary the existence of an efficient performance evaluation system and the practice of adequate controls, which ensure for the top manager of the company, an effective monitoring of activities.

The risk of increasing the financial efforts involved in the formula of a activity in a decentralized system requires the general manager of a company, in advance of the decision to divide the activity, a careful analysis of the probability of obtaining benefits to cover cost increases (Agarwal).

6. Acknowledgment

This paper is a fragment from the publication *Centralizare versus autonomie locală în gestionarea resurselor de dezvoltare*, author Florina Popa, Editura Universitară, București, 2018, with the mention that the version was published in Romanian and is different from the form of the present study.

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Quality Management in the Hotel Industry in the Mountainous Area of Romania

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Abstract

The importance of quality in the tourism sector must consider the socio-cultural progress of people and their critique of their distance from nature.

Choosing as research object the quality management in the hotel industry in the mountain area of Romania we chose as barometer the numerical evolution of the tourist reception structures with accommodation function in the resorts in the mountain area with the intention to identify the quality of management in the tourism sector. The indicators chosen to analyze the quality management are the tourist reception structures with the function of tourist accommodation in the mountain resorts and the overnight stays in the tourist reception structures with the function of tourist accommodation in the mountain resorts; data collection was available with the help of official data provided by the National Institute of Statistics in Romania.

It is recommended to improve the destination management system by coalition of public and private environmental factors interested in developing and capitalizing on the tourist potential of the destination.

Key words: quality management, mountain tourism, strategy, hotel industry
J.E.L. classification: L1, L8, Z3, M5

1. Introduction

Romania's tourist potential in terms of the mountain area is very high, every year the number of those who choose to spend their free time increases. The mountainous area for Romania is one of the tourist riches of Romania, being fully exploited by those who want winter sports, but not only, because the mountainous area does not only mean winter and sports, but also summer, relaxation, spa, walks on the mountain paths, exploitation, unique caves and monuments, monasteries, and castles, being a perfect blend of modern, luxury restaurants, quality and traditional services, the old and the quiet of the mountain villages.

Nowadays, the use of the tourist service has gained great exponential importance with what we generally know about other sectors of the economy. The main objective underlying the choices of both tourists and suppliers is to obtain a "quality service". But quality is a very broad term that covers a wide range of possibilities.

Analyzing this concept, we can highlight the different notions that must be taken into account when establishing the quality of a tourist product: excellence that far exceeds the characteristics common to other products / services that make it superior; the added value that underlies the efficiency of use by the customer and that generates higher performance than the costs necessary to create it and the last notion is the functionality that exceeds the expectations of the tourist thus becoming an extremely efficient product.

In Romania, in the conditions of the market economy, the demand for mountain tourism products oscillates constantly, especially in an ascending sense in terms of material possibilities, transport facilities, the need for knowledge and extra-professional activities that act as an emulator to promote this process.

In Romania, tourism in the mountain area has been practiced since ancient times; it was practiced by soldiers who trained for defense and orientation exercises, by residents of neighboring rural areas to procure various fruits and vegetables that have been developed wildly in both forests and mountainous areas.

Quality management in mountain tourism requires a long-term strategy, which leads to a continuous improvement of the quality of mountain tourism products and services in conjunction with the management's ability to meet and exceed the needs of tourists, facilitating increased productivity and profit. In reality, the notion of quality designed only as an adaptation to standards must be resized so as to adapt to the needs and expectations of the customer. Due to these considerations, this paper aims to highlight a number of theoretical and practical aspects of quality management in the mountain environment, as it is the key process for attracting, gaining and customer satisfaction, loyalty and obtaining a profit and a way to ensure product competitiveness and services as well as the credibility of the tourism services market.

Accessing the tourist potential in the mountain area is possible by adopting four objectives: increasing the level of education and professional training of human resources in the hospitality and tourism industry; increasing the quality and performance of tourism destinations in Romania and ensuring the quality standards of products / services in the tourism industry; increasing the notoriety of the mountain tourist destination in Romania, as a quality tourist destination on the international tourism market and the sustainable development of tourism, by creating a coherent legislative framework (Torrente et al, 2004).

In order to increase the quality and performance of tourist destinations in Romania and ensure the quality standards of products / services in the tourism industry, it is necessary to improve the destination management system by forming a coalition of organizations and public and private stakeholders interested in developing and capitalizing on the tourism potential of the destination by facilitating access to mountain areas as a result of infrastructure development throughout the country.

The various challenges in the hotel industry indicate to management the directions to develop the quality system that continues to generate organizational processes resulting in high quality products and techniques, and the notion of total quality management (TQM) that is defined as a "management approach that emphasizes the continuous process and the improvement of the system as a means of obtaining customer satisfaction to ensure the long-term success of the company "(Summers, 2006).

Validation of challenges indicates the direction of management to overcome potential obstacles, which also contributes to reducing costs, time and resources; in addition, by knowing the appropriate strategies or critical success factors, management teams can make better use of their strengths, identify weaknesses and understand the process of maximizing and using resources.

The uniqueness of this study comes from the need to understand the notions of total quality management and the footprint of the tourism sector in the mountainous areas of the country the implementation of quality in the fields of hospitality, as well as in quality management.

2. Literature review

Mountain tourism is a type of "tourist activity that takes place in a defined and limited geographical area, such as hills or mountains with distinctive features and attributes that are inherent to a specific landscape, topography, climate, biodiversity (flora and fauna) and local community that encompasses a wide range of outdoor sports and leisure activities ". (Pascal, 2013)

The mountain area is ultimately characterized by a high concentration of tourist resources, the relief is the support of all components of the geographical environment, it is also the support of tourism activities: therefore, it is considered the main component of the tourist potential of an area, this being all the more evident in the mountainous area.

The mountainous area in Romania consists of the Carpathian Mountains which represent a third of the country's surface and is located in 27 counties and in 2018 about 16% of the total population still lived in mountainous areas representing approx. 950,000 mountain households in the Romanian Carpathians.

At the level of the mountain area, the lower Carpathian floor, located below the limit of 1000 m altitude, corresponds to the most favorable conditions for human habitat, grouping the depressions and the intramountain valley corridors where most human settlements are concentrated. In the upper floor of the limit of over 1000 m, many households are grouped in the form of human settlements such as "scattered" villages and hamlets. On a household, the average surface varies according to altitude: 2.5 ha at 600-700 m and 3.5-4.5 ha at over 800 m.

Theoretically, rural and mountain tourism have a high potential to stimulate local economic growth and social change due to its complementarity with other economic activities, its contribution to the GDP and job creation and its ability to promote the dissemination of demand over time (fighting the season) and over a wider area.

The elements for which tourists are attracted to the mountain area - fresh air, diverse landscapes, rich biodiversity, and unique cultures - are under threat, partly due to poorly managed and unsustainable tourism. The investment, operational and managerial decisions of tour operators, other tourism professionals and the wider industry help to determine the level of both the negative and positive impact of tourism in mountain environments.

Tourism can have a series of impacts on mountain ecosystems, communities and economies. Although many of the impacts could be negative, tourism can also generate a positive impact, as it can serve as a force for peace, encourages pride in cultural traditions, helps urban relocations by creating local jobs, increasing employment. awareness and appreciation of visitors to natural, cultural and historical values and assets.

Mountain tourism produces effects at the level of three important directions, economic, socio-cultural and environmental effects. The economic effects are the easiest to quantify and explain, which is why we approached their analysis through economic indicators, the tourist reception structures with tourist accommodation function in the mountain resorts and overnight stays in tourist reception structures with tourist accommodation duty in mountain resorts.

The positive socio-cultural effects have direct implications in increasing the level of education of locals as a result of the need to facilitate the communication with tourists, both from a culturally point of view and from learning a foreign language, in increasing the living standards of disadvantaged people by creating jobs, but also their direct involvement in the design and provision of local products to tourists (Moisescu, 2017).

Tourism can contribute to increasing the quality of the community by developing the infrastructure of utilities, transport or energy (which is needed for the proper functioning of the tourist destination but will also benefit the inhabitants of the area) and by improving the quality and diversification of goods and services (to ensure the satisfaction of tourists in the area will appear a much more diverse range of goods and services, often at higher quality standards, which will have access to the local population), (Reisinger, 2009).

With positive implications we add the promotion of tolerance and mutual understanding between peoples through the multidirectional chance of knowing other cultures directly and eliminating ignorance by eliminating some stereotypes. We mention the intention of tourism to keep alive the traditions but also the effort to redesign the declining traditions by keeping the diversity and local specificity in a world subjected to globalization (Beech et al, 2016).

Among the socio-cultural effects with negative impact we mention the discrimination in occupational patterns that occurs in the tourism sector; as well as the proliferation of kitsch through the emergence of pre-events and pseudo-artifacts that do not bring direct benefits to the local community but only to tourism entrepreneurs; intercultural conflicts and increasing crime.

The effects of tourism on the environment contribute to the protection of the biodiversity by transforming rare species of fauna and flora from parks and reserves into tourist attractions in antithesis with pollution, consumption of natural resources, certifications and ecological labels that represent the negative effects of the environment.

In the conditions of the market economy, the quality management in tourism depends on the uniqueness of the relief, on the performance of the activities, the modernization of the flow, the

technologizing, the sustainable responsibility, and the definition of the organizational characteristics. At the cognitive level, only the simple association of quality management in the hotel industry in Romania in the mountainous area can provide positive results in terms of the theoretical approach of the notion in choosing, defining, mapping the tourist product or service.

3. Research methodology

The mountain area is characterized by the existence of two periods of season with tourist activity of similar intensities, but the duration and mobility of travel are different so that the mountain areas meet the requirements of a bi-seasonal activity - winter for snow and sports, summer for rest and hiking, mountaineering (Turcu, 2008).

Choosing as research object the quality management in the hotel industry in the mountain area of Romania we chose as barometer the numerical evolution of the tourist reception structures with accommodation function in the resorts in the mountain area with the intention to identify the quality of management in the tourism sector.

The data collection was done with the help of statistical directories available nationally and accommodation units are divided into hotels, hostels, motels, inns, tourist villas, tourist cottages, tourist pensions, agritourism pensions, campsites, tourist stops, holiday villages, bungalows, students and preschool camps, tourist cottages and accommodation on ships.

The vision and strategic objectives offer the obvious directions of the contribution of quality management in the development of the tourism industry in the mountain area by: protecting the environment and natural resources correlated with responsibility and accountability; improving the economy through the economic opportunities of the tourism industry by increasing the number of jobs and enriching connectivity by increasing the movement of people, goods and information; providing public services as a consequence of modernizing the area; promoting efficiency, accessibility and sustainability.

The application of quality management in the development must also take into account the requirements of respecting the quality of the environment, rely heavily on the human factor, which is mandatory to have a culture and information on environmental issues, thus helping in the process of attracting, gaining and customer satisfaction, customer loyalty and profitability, as well as a way to ensure the competitiveness of products and services as well as the credibility of the area in the tourism market.

The indicators chosen to analyze the quality management are the tourist reception structures with the function of tourist accommodation in the mountain resorts and the overnight stays in the tourist reception structures with the function of tourist accommodation in the mountain resorts; data collection was available with the help of official data provided by the National Institute of Statistics in Romania.

Figure no. 1 Evolution of the number of profitable companies presented by county and period



Source: Authors' study based on the INSE indicators

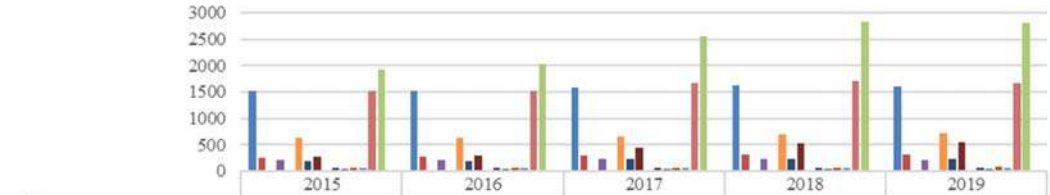
4. Results

The development of tourism activities in mountain destinations generates a series of economic effects that should ensure economic growth, social progress, and environmental protection, all in the long term and in conditions of sustainability. The World Tourism Organization indicates sustainable tourism as "tourism that takes into account both its current economic, social and environmental impact and its future impact."

The literature identified three approaches to the impact of tourism on the economy: undervaluation, overvaluation, and the realistic approach that tourism is an important component of the tertiary sector of the economy, with significant effects on the economy, which ensure sustainable economic development through synergy with other economic sectors (Postelnicu, 2006).

The tourist reception structures with tourist accommodation function have as priority the protection of tourists and are classified quality-price ratio according to the constructive characteristics, endowments and quality of services offered for the purpose of tourists, accommodation services and public catering.

Figure no.2. Evolution of the number of tourist reception structures with tourist accommodation function in the mountain area



	2015	2016	2017	2018	2019
Hotels	1522	1530	1577	1616	1608
Hostels	248	266	300	319	323
Appart Hotels	23	21	20	20	17
Motels	221	218	222	231	219
Inns	3	3	3	4	3
Tourist villas	643	635	659	695	709
Tourist cabins	196	194	225	231	222
Bungalows	280	288	434	533	557
Holiday villages	7	7	9	10	9
Campgrounds	66	61	57	58	58
Tourist stops	33	38	40	47	47
Tourist houses	61	59	70	73	82
Student / preschool camps	63	58	57	59	55
Tourist pensions	1527	1530	1666	1709	1669
Agritourism pensions	1918	2028	2556	2821	2800
Accom. on river vessels	10	10	10	27	24

Source: made by the author based on data from statistical yearbooks

The mountainous area of Romania has a unique character and a valuable cultural endowment, the socio-economic evolution of each country brings differences in the development stage through the importance of tourism activities in the sustainable development of a tourist area with a specific form of tourism based on cultural and historical assets, so, we appreciate the figures presented in the previous graph as the engine of a growth market that produces favorable images of Romania.

From the time period analyzed at the end of 2015 there were built and functional 6,821 accommodation units in the mountainous region of Romania, following an increase of 1.02 in the following year, aspects that were possible with the help of economic growth, sustainable investments and jobs in which adds the first steps in the subsequent progress of mass digitalization.

Predominantly from the analysis of the graph is the upward trend of the indicator presented in the analyzed time period, from which results the favorable effects of mountain management in Romania, effects that have impacted the positioning of mountain tourism in the list of reasons for tourists, both domestic and foreigners.

Thanks to the need for relaxation coupled with the trend to maintain muscle tone, the number of people who began to practice mountain tourism to exercise, as well as the number of sports competitions held in mountain areas, increased at an astonishing rate which is why we notice an upward increase over the analyzed period of time of the number of accommodation units.

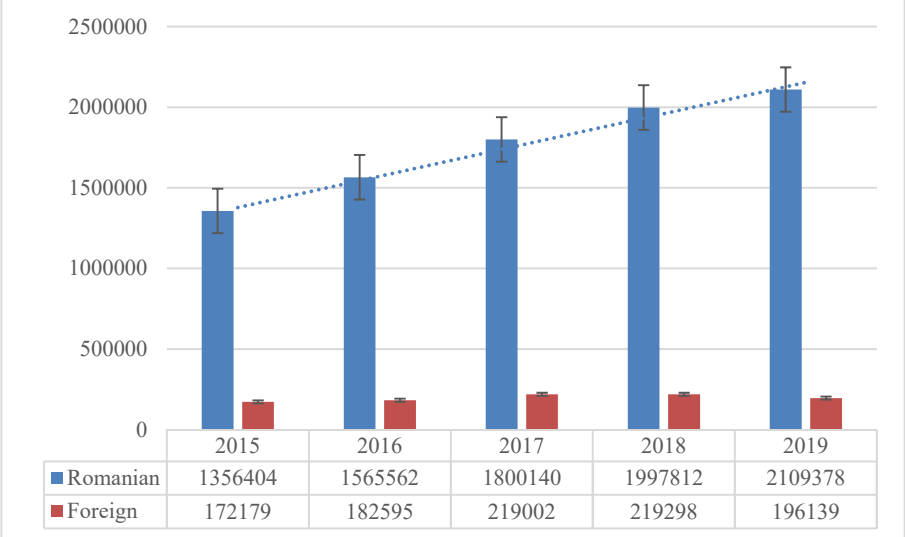
The year 2016 represented the year of ascent of the area regarding the fast growth rate of accommodation units, the total number of reception units increased compared to 2015 by 1.14% which validates the positive assessment of quality management in tourism development in the mountain area having in view of the complexity of the situations where the catalyst of evolution took into account the conservation and sustainable development by stimulating and cooperating in the region but also by highlighting the mountain tourism as a landmark for Romania.

The previous table shows numerically the reception structures in tourist pensions and agritourism pensions which in 2019 represent 53.18% of the total number of accommodation units, respectively 8,402; in 2018 this indicator had the value of 8,453 and in 2017 were 7,905 accommodation units.

The increase in the number of reception units is supported by a variety of factors, namely: improving the legislative conditions for building an accommodation unit, the support of the government through programs that offer benefits, transshipment of important cultural events, the possibility to practice sports activities specific only to the area, the existence of diversified and attractive cultural heritage from the tourist point of view, the consolidation of the infrastructure and the means of communication, the revitalization of some cultural objectives and their integration in tourist circuits.

After a series of debates, a consensus was reached on the definition of the concept of tourism, which refers to "activities carried out by people, during trips and stays in places located outside the usual residence, for a consecutive period not exceeding one year, for leisure purposes, for business or other reasons". (Minciu, 2005)

Figure no.3. Number of tourist arrivals in tourist reception structures with tourist accommodation functions by types of tourists



	2015	2016	2017	2018	2019
Romanian	1356404	1565562	1800140	1997812	2109378
Foreign	172179	182595	219002	219298	196139

Source: made by the author based on data from statistical yearbooks

An annual increase in the number of domestic tourists arriving in the mountainous areas of Romania can be observed. The trend of the number of foreign tourists in mountainous areas is fluctuating, so that the number of tourists who arrived has experienced an upward trend since 2015, with annual increases compared to previous years.

The development of information technologies followed by the general decline in prices for tourist travel has contributed to the increase in the number of tourists and the ongoing process of globalization. The number of tourists who arrive in the mountainous areas consuming a product or service is also the main feature of the tourist offer in that area, differing from other services. Thus, the result of the forecasts is that the number of tourists tends to increase in the coming years. As can

be seen, in 2019 there was an increase in the number of domestic tourists compared to 2018 by 1.05%.

In the analyzed period, 2019 was a year detached by comparison with the other years for the number of foreign tourists who visited the mountain areas, so that they arrived in Romania in a number of 219,298 with 1.27% increase compared to 2015.

In the category of domestic tourists who accessed the mountain areas, we note the year 2019, which saw a number of 2,109,378 tourists.

The selected indicators are numerical dynamizing elements that are the object of the national calculation and follow the accuracy of the information simultaneously with the manifestation of the conclusions that appear as a result of the application of quality management in the tourism industry in Romania.

5. Proposals and recommendations

The quality of tourist services is a priority for mountain tourism in Romania, correlated with natural resources and development potential. Particular attention can be paid to the specialization of the skilled worker or managers, the explosion towards a customer-oriented mentality, empathy and relationship with the needs of the tourist.

The quality of tourist services is a priority for mountain tourism in Romania, correlated with natural resources and development potential. Particular attention can be paid to the specialization of the skilled worker or managers, the explosion towards a customer-oriented mentality, empathy and relationship with tourist needs, increasing the number of foreign tourists, developing tourism schools by creating networks of establishment and training in the hospitality sector.

Increasing the level of education and training of human resources in the hospitality and tourism industry is the recommendation to be able to maintain the current growth rate, or even to be exceeded by the flow of tourists who are welcomed in an environment characterized by variety and heterogeneity.

It is recommended to improve the destination management system by coalition of public and private environmental factors interested in developing and capitalizing on the tourist potential of the destination.

Supporting the investments necessary to achieve an adequate infrastructure specific to accessibility in the mountain area; development of infrastructure for access to the high mountain area; expanding existing activities and introducing new ones for nature and adventure tourism; development of ecotourism destinations and related products; favoring the process of diversification of activities complementary to the accommodation capacity; restoration and development of certain mountain administrative capacities, all of which sum up the list of recommendations attributed to this study.

An overview of the strategy is recommended that is tangent to the following strategic objectives: protecting the environment and natural resources, improving the economy, improving connectivity, providing public services and promoting efficiency, accessibility and sustainability, consistent with quality management in accordance with technological progress.

6. Conclusions

Despite the lack of a single recipe for implementing a quality management plan in the tourism industry in the Romanian mountain area, it is worth mentioning the natural advantage that the country enjoys due to the positioning of the Carpathian chain, but at the same time it is necessary to apply a planning process, based on the inclusion of locals, authorities and the business environment aimed at cultivating the interest of mountain areas but also maintaining the relationship with it.

The success of the area as a tourist destination in the top of tourists' preferences is doubled by establishing a strong, well-structured management with sufficient financial and human resources for action involving autonomy, responsibility and a mix generated by the relationship between public authorities, private sector and local population.

This study produced findings that are applicable to improving quality practices in the mountainous area of Romania and is based on official data provided by the Romanian National Institute of Statistics, as well as studies and research published in journals related to quality and management in the tourism sector.

In conclusion, the creation of a partnership based on a close cooperation between all actors involved at local, regional, national and even international level to monitor implementation; forming a common vision for development by consulting the agencies involved and residents; attention to the balanced distribution of the positive effects due to the development of mountain tourism; the need for a complex policy to coordinate tourism activities and services; are the incentives behind this approach.

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Readjustments in Public Institutions due to Covid-19 Pandemic and the Communication Effects in Dâmbovița County Council

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Abstract

The entire globe is facing challenging times, due to an invisible threat named Covid-19. This virus that has generated a worldwide health crisis is forcing all levels of administration to work in an environment of uncertainty and to cut access to priority sectors like health, education, economy and social life, considering the challenges it poses. This pandemic has a very divergent local and regional impact and a strong territorial dimension, with major consequences for citizens, businesses and public institutions. This article explores the authorities' response to the crisis, with particular examples from the impact upon Dâmbovița County Council, by examining the efforts and good practices that are being made to tackle the pandemic and the remodeling of the local communication management.

Key words: Covid-19, public institutions, health crisis, communication, grounded theory
J.E.L. Classification: H7, H11, H12, I0, R1

1. Introduction

Today, the world has changed significantly, in comparison with last year. Mankind is crossing difficult times, like civilization has never seen before. This microscopic organism has spared no level, no system, no country or continent, but it has turned our lives upside down. This organism is basically a virus that has been brought to attention, officially, on 31st December 2019, when the World Health Organization (WHO) first learned of it. It is a novel Coronavirus that has been called COVID-19, after reporting a cluster of cases of 'viral pneumonia' in the city of Wuhan, People's Republic of China (World Health Organization's official website). Following an evolution of events regarding this matter, WHO publicly announced on 11th March 2020 the Covid-19 outbreak as a pandemic: "WHO has been assessing this outbreak around the clock and we are deeply concerned both by the alarming levels of spread and severity, and by the alarming levels of inaction. We have therefore made the assessment that #COVID19 can be characterized as a pandemic" (via Twitter.com) stated Tedros Adhanom Ghebreyesus, the General Director of the World Health Organization, during a media briefing.

The Covid-19 pandemic affects many sectors of activity - economy, tourism, culture, sport, but mainly health care system. It involves different types of intervention from the central government level, and also ministries, to the regional and public administration. The past 9 months of the pandemic in Romania have led to significant changes within administrative authorities and the implementation of special administrative policies in order to fight against Covid-19 and prevent mass spreading. A good communication and cooperation between central and decentralized administration structures is needed, due to the fact that a country cannot properly function if it lacks efficient coordination between these two parties.

We are facing transformations in every area, from health to economy, public safety and security, education and freedom. This document aims at emphasizing the impact of the new corona virus on the public institutions in Romania, pointing out a number of effects that can be noticed in Dâmbovița County Council, especially within the local communication management. At European

level, the digital divide between Romania and other EU countries is still very significant, regardless the past years' efforts towards the implementation of the Digital Agenda Strategy in our country. Romania was considered to be a remote nation in the transition towards an information society, a deprivation that is affecting the way our administration is responding to the Covid-19 pandemic.

To measure the impact of this pandemic towards a public institution and to determine the distribution of powers between regional and local agencies, department prefects and decision-making officials, the authors analyzed the response of the Dâmbovița County Council throughout nine months of pandemic, namely from March to November 2020, using the ground theory as a qualitative research method. Health crises are unique in that they do not only concern the health care and social fields (for which establishments and health professionals are mobilized by nature) but they are also the reason for an examination of the administration and its public institutions' powers.

2. Literature review

Scientific research is a dynamic process and an analytical approach which allows to examine a phenomena, to solve a problem and/or to obtain precise answers based on investigations (Durkheim, 1982, p.36). This process is characterized by the fact that it is systematic and rigorous and generates new knowledge for both the researchers and the targeted audience. The types of research are determined by the researcher's objectives and are quantitative, qualitative or a mixed approach between the two. Research methods, no matter their purpose, can properly function only if they have explicit procedures and have been proven to be working during time. The broad application of qualitative and quantitative research methods in public administration field are changing the way researchers are analyzing open data and information of public institutions, especially during times of crises.

Quantitative research aims to collect quantifiable data for describing, explaining and predicting some events based on observation of objective facts. The data and information that are being analyzed by the researchers must be reliable and valid, guaranteed by the owner – in this case by the public institution which is being investigated. This type or research results in descriptive figures, tables and graphs that show a correlation of facts, associations or differences between one or more variables chosen (data or information). In qualitative approach, the researchers begin with a real, specific situation or event that involves a particular phenomenon (in this article's case, a health crisis) that aims to understand and to give meaning to a certain situation that is being analyzed through observation, description and interpretation of the context and the phenomenon as it is. The mixed approach, which is a combination of the quantitative and qualitative research, gives access to all of the advantages from the two types and provides a wide and complex analysis of the situation in all its dimensions.

Within this article of study, the authors determined as best fitted instrument to investigate, analyze and draw conclusions over a worldwide event (the Covid-19 health crisis) the grounded theory of Glasser and Strauss - a qualitative research method that has been firstly introduced to researchers in 1967 and has been widely used ever since (Strauss, Corbin, 1990, p.12-16). As time passed, this method has suffered adjustments in order to fit the realities of when it was used and the complexities of the events that were analyzed. The most important principle of the grounded theory is the principle of change. Everything is touched by time and nothing remains in the same state forever. People, societies, cultures, religions, medicine and technology - all is changing as time passes, due to different conditions. The end goal of the grounded theory is to determine, by analyzing given data, if and how an individual, organization or society is responding to certain conditions in a certain time frame and what are the effects of a situation or crisis upon that individual, organization or society.

The event that is being analyzed by the authors and that gives raw data and information in scope of this research is the Covid-19 pandemic, a unique health crisis within the modern world. A pandemic is defined as an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people (World Health Organization, 2011). The classical definition includes nothing about population immunity, virology or disease severity.

Central, regional and local authorities are in the front line of the 2020 health crisis, therefore they are responsible for almost all measures that must be taken in order to build a 24-hour communication and dissemination of information every day, an effective public service delivery, reliable medical services, needed financial instruments and targeted economic development. In this framework, the coordination of the activities is mandatory for each action to reach its intended goal and maximum effectiveness. The Covid-19 pandemic has reached all levels of administration, having a significant territorial coverage. In response, the government actions need to become more proactive and innovative to meet the rapidly evolving challenges, in order to minimize the impact of this new coronavirus crisis. Innovation is generally the result of multiple evolutions, very well calculated, accompanied by means, resources and various competences (Akrich, Callon, Latour, 1988, p.4-11). Innovation is often compared to a bet, where the public institution or organization that uses it needs to assess some risks (Alter, 2000, p.27-28) in order to achieve its purposes. This paper is aiming to highlight the areas where the pandemic has had an impact in Dâmbovița County in Romania, the response given by the County's decision-making officials and the effects in terms of public communication. The most affected areas and its impact due to the 2020 pandemic are detailed below.

Health and social impacts: although the current pandemic has affected the entire country, some regions have been stricken more than others, in terms of their vulnerable communities, poor and disadvantaged areas, along with the capital city due to its large population.

Impact on education: this pandemic has affected heavily the education system. Although efforts have been made at governmental level towards keeping the schools and universities open, the risks the experts identified were too high, therefore online schooling became mandatory. Although this has been done for the safety of the students, the measure is threatening the normal development of children, as it is cancelling some of their habits, like networking, learning by doing and experimenting (Perpelea, 2004, p.54).

Impact on economy: the impact in terms of economy varies from one region to another, but there are some sectors like HoReCa - travel, events and entertainment - that have known almost the same impact, because these are sectors that were the first to be closed or got most restrictions in terms of working. Other sectors, which derive from these ones or are complementary or depend on them, have also been affected. On the other hand, there are sectors whose revenues have practically exploded, like the private health care sector, the manufacturers of medical supplies, the food delivery business, the online shopping and online payments systems. The degree of institutional liability across Romania varies from one region to another, depending on the capability of each local institution to respond to these challenges.

Financial impact: it is no news that for 8 months now, the Romanians have overspent their money, and that was a reaction to the fear and panic that the pandemic has spread among the people. The population has bought large amounts of food and beverages, over the counter medication, home goods and online services, even though the salaries of a significant part of the population have been reduced considerably. Local administrations have also started to spend large amounts of public money on improving the health care system, to ensure the citizens access to the medical services that are being provided to treat Covid-19, financial support for those who have lost their jobs, and incentives for the health care workers and other related public services for a sustainable coronavirus prevention and containment.

3. Research methodology in dealing with a global health crisis locally

In order for the authors to establish a pattern or to come to certain conclusions regarding the topic of analysis, research has been made in order to gain some knowledge and reach some conclusions on how a worldwide health crisis has been affecting the public institutions in Romania and to find answers in respect of the communication process within Dâmbovița County Council, a local public institution affected by the Covid-19 pandemic.

The grounded theory of Glass and Strauss is an easy, yet powerful qualitative method based on facts directly observed by the researchers - in this case, by the authors - during an analysis of an event over a determined period of time (Strauss, Corbin,1990, p.12-16). This research method has the ability to provide qualitative data and generate significant information for the authors to

construct an opinion and determine facts over the chosen topic. This method is very appropriate to use when little is known about the crisis, when facts change from one week to another and when there is no prior pattern or precedent. The 2020 Covid-19 crisis has been new to every nation on earth, except for China who was maybe ahead of the rest of the world due to the fact that there was the ground zero of this nationwide crisis. The authors' goal is to develop a theory based on a process of analysis of certain findings generated by raw, open and public data, which were accessed freely on the official website of the institution that was subject to the authors' investigation.

In the current context of the health crisis caused by Covid-19 pandemic, Dâmbovița County Council is working to guarantee the continuity of its services and mission towards the county people. As containment has caused the stopping or slowing down of the activities of many economical actors, this new coronavirus has brought a certain impact on the county council too. Having faced changing scenarios since March 2020, when the quarantine started all across Romania, Dâmbovița Council had to find alternative solutions to ensure the communication and public service delivery, to offer shaped support to its citizens' needs, to ensure the coordination of the local systems and ongoing projects and to maintain a 24/7 communication. Nevertheless, the pandemic got to influence the decentralized and institutional cooperation, with important consequences not only for the citizens as individuals, but also for Dâmbovița County's systems (healthcare, economy, education, security and safety, trade and tourism).

In front of this situation, Dâmbovița County Council has had a number of approaches to re-affirm its commitment to serve the population in terms of their health and wealth. These initiatives, which have been put into practice at local and regional level, have been analyzed by the authors to obtain information and draw conclusions using the ground theory, regarding how the County Council has been responding to the Covid-19 pandemic over a determined period of past 9 months. The research method used by the authors aimed to monitor the public communication and the official channels of communication of the County Council, the media briefs of the president of the Council announcing actions and activities related to the pandemic and their implementation on regional level from a valid, trusted source: the official communication channels of the institution (the website and the Facebook page). The timeframe of this analysis is March to November 2020. The authors collected public data and information that made it possible to overview the situation of the monitored county institution, the evolution of public communication and to uncover relevant conditions of response in the situation of a crisis. All information that was published by the institution during the chosen period of time was considered relevant to this study and was taken into consideration.

4. Findings

The technical evolution and innovation is generally accompanied by a change of the organization itself, often disturbing the traditional processes and activities that are heavily grounded for years inside the organization. With the digital transformation, institutions advanced from manual labor to a more automated one, using digital tools and instruments that have restructured the activities and work flows (Bouzon, 2006, p.55).

One of the main objectives of Dâmbovița County Council has been to allow an exchange between the local communities and the institutions engaged in preventing Covid-19 spread and make the best approaches to deal with this issue rapidly in a changing and challenging environment. This type of public consent can be done only if the public institution "makes efforts to explain to the public the advantages of cooperation for creating a win-win situation for both parties involved in public decision-making" (Dozier, A. Grunig, E. Grunig, 1995, p. 47). This health crisis has definitely weakened the local authorities, especially the County Council, as the main partner for the Târgoviște City Hall, the regional Police and county hospital network. Even since the beginning of the pandemic, the Council started to elaborate and accommodate public policies as a fast response to a new, invisible threat that is able to weaken the medical systems all over the world.

The actions and solutions that were put in place after the COVID-19 pandemic started (in March 2020) in the short and medium term in the region of Dâmbovița by the County Council had one priority in mind, namely the health risks for all the vulnerable citizens and communities across the region, that were highly exposed to this virus and were deprived of access to proper health care, education and wealthiness. Despite all the precautions and preparations, not every measure and decision by the decision-makers of the Council proves to be effective.

To prevent a Covid-19 crisis, the Dâmbovița County Council has had a wide field of interventions:

- immediate help coordinated with the other county councils, regional or local health providers and the central Government institutions, in order to maintain the public order;
- temporary public policies according to the severity and intensity of the health crisis during a given time or moment, along with the necessary resources to put in place;
- materials and personnel provision, mobilization of the health reserve and fast acquisition of medical equipment;
- closure of schools and other public and private educational organisms, in response to the fast spread of the virus in local communities around the county;
- adapting the delivery of daily public service in a more safer environment, for not to endanger the public order,
- protecting the public servants who are more exposed to the risk of contamination from the virus due to the nature of their usual activity (health personnel, public servants who come into contact with many citizens due to the nature of their work, teachers, public transportation drivers), because they are systematically exposed to Covid-19, making them more vulnerable to getting infected;
- reducing the risk of contamination by promoting online interaction in relation to the public services and developing smart mechanism in order to reduce the close and regular physical contact between the citizens;
- round the clock cooperation with the regional police department, hospitals and schools, county town halls, regional health providers for developing immediate solutions to the everyday challenges.

The interventions developed by the Dâmbovița County Council as a response to the 2020 pandemic have met the people's expectations to some extent. The municipalities and departments in the region, with the help of local professional organizations, have been working continuously to support the actions of the County Council. The instruments that are being used by the institution to communicate, disseminate and promote the daily activity in the context of Covid-19 are 90% online (on the official webpage http://www.cjd.ro/ and also on the official Facebook page). The Council is still holding press conferences at its headquarters, but with adapted safety measures like: fewer journalists invited and less physical audience, social distancing between the participants, mask wearing. Drastic changes have been made regarding the communication strategy, as a result of adapting to the new pandemic.

These changes represent the effects that Covid-19 has had upon the institution and were observed, analyzed and interpreted by the authors in the context of this health crisis with procedures of grounded theory, based on facts that were transparently presented and published by the institution on its official communication channels. The qualitative research gave the following integrated set of findings that provide an analytical explanation of the event that was under study:

- the interaction between co-workers within the Council has been reduced;
- most of the meetings and work discussions with people from outside the institution are held online, via the Zoom platform. The number of work related meetings about tackling this health crisis has increased, with online discussions taking place daily with the local police, local schools, local hospitals and the regional health care providers. Working discussions are taking place with representatives from the central level every week or when necessary, at any given moment;
- the press conferences are held in larger rooms, with a smaller audience, and they are being broadcasted live on the official Facebook page of the institution. The number of physical press conferences from March to November 2020 has decreased compared to the same period in 2019, due to the new safety measures adopted (as seen in Table 1 below);

- the number of announcements and press releases decreased also from March to November 2020 versus the same period in 2019, mainly because some activities have had to be postponed or cancelled due to new safety measures and restrictions (as seen in Tables 2 and 3 below). Law 544/2001 states the citizens' right to a free and unconstraint access to public information as one of the fundamental principles of the relation between the individuals and public authorities (Law 544/12 October 2001).

Table no. 1 Comparison in Media briefs

Announcements (by Law 544/2001)		
	2020	**2019**
November	2	8
October	7	24
September	7	14
August	8	11
July	11	16
June	7	9
May	3	10
April	3	8
March	6	8

Table no. 2 Comparison in Press releases

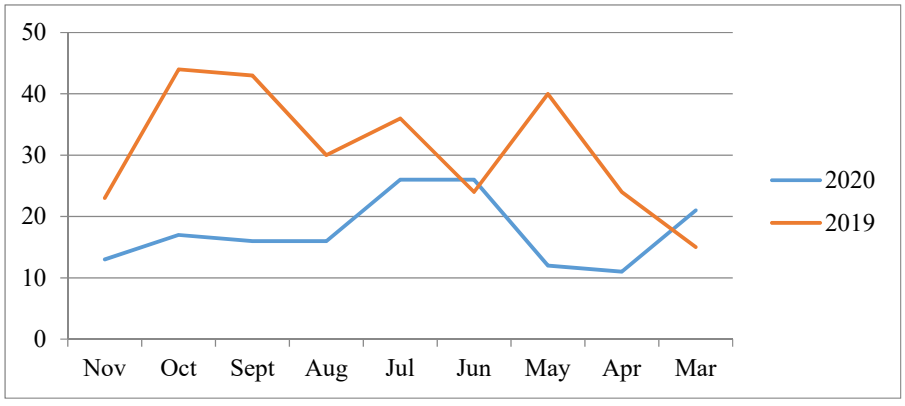
Press releases		
	2020	**2019**
November	9	14
October	9	20
September	9	25
August	8	16
July	15	19
June	17	13
May	8	29
April	6	14
March	13	6

Table no. 3 Comparison in Media conferences

Media conferences		
	2020	2019
November	2	1
October	1	-
September	-	4
August	-	3
July	-	1
June	2	2
May	1	1
April	2	2
March	2	1

Source: (http://www.cjd.ro/)

Figure no. 1 Comparison of the Council's communication during Covid-19 vs. non-Covid-19



Source: (http://www.cjd.ro/, 2019 – 2020, the total number of announcements, press releases and media conferences)

One of the downside effects of this new normality is the less frequent social interaction between citizens and politicians, or between journalists and politicians. The communication process has become very dry and highly formal, because of the severity of the crisis. Also, as it can be seen in tables 1, 2 and 3 above, the Council has communicated less during the analyzed period of time (November – March 2020) compared to the same period in 2019. The main reason for this decrease is the cancellation of many on the field projects and activities in the region. There is no room for error, meaning the information that is to be communicated is being verified and confirmed, so that it can be trusted by the population. These online instruments were not perfectly calibrated from the beginning to face a health crisis like the Covid-19 pandemic. But efforts are being made daily, in order to tackle the disadvantages and to come up with a better and more efficient response and not to deprive the citizens of information.

However, it should not be denied that, in some cases, the answers and solutions that Dâmbovița County Council provided did not meet the expectations of the county communities. Not all initiatives and communication actions have proven to be effective. In addition, public decision-makers were and still are often blamed for the bankruptcy of the HoReCa industry and low coverage of the losses, for the loss of thousands of jobs, for the shortages in family income, for restricting freedom and denying the access to proper education by closing the schools or for late communication of a solution or response.

The following recommendations made by the authors after the careful observation and analysis performed in this study using the ground theory, show that there is still a lot of work to be done in the future, to support the local communities in Dâmbovița County and its citizens during this difficult time that the world population is passing:

Recommendation 1: continue and increase the digitalization of the procedures and public services in order to restrict as much as possible the physical interaction between the people.

Recommendation 2: accelerate the digital transformation of our health system to promote information sharing, support the increase of the e-health practices and improve the protection of the hospitals against cyber risk.

Recommendation 3: increase the number of public communication activities, so that the population can feel safe. The Council needs to become the watchdog of its community.

Recommendation 4: continuous developments of the health care services.

Recommendation 5: mobilize the citizens in order to follow up and observe the minimal required health measures in order to fight against the fast spread of the virus, which will generate a slowdown in terms of infection and therefore a relaxation of the medical system and restrictive measures.

Recommendation 6: promote the citizens' engagement in the online activity of the Council, because the information and data that are being shared are vital for the health and safety of the population. The more people are being reached, the more efficient the communication will be.

5. Conclusions

The evaluation performed in this study, the discoveries made by the authors are easy to value and understand by the readers, who can make their own subjective evaluation and can interpret the presented findings based on their own personal knowledge. The impact of the new Coronavirus pandemic on all primary sectors of a country and of a region is obvious and has already been widely commented on. Via online channels, data and information are circulating day-and-night to make the people aware of the consequences and risks of this pandemic. But the new coronavirus, also known as Covid-19, has already had effects on public institutions and authorities. Not only is the delivery of public services affected, but also the way in which the data and information reach the public. Public communication has definitely changed, due to the restrictions in human interactions and drastic safety measures that were put in place. By November 2020, due to the fast spread of the virus, the activity of the institution, along with the communication process, were affected, with significant decreases in the amount of information released to the public, because some of the Council's projects had to be cancelled or postponed.

Today, all the public service providers have been mobilized in Dâmbovița County to support the protection measures and implement the action lines by the decision-makers. It is in the public institutions' hands to ensure the continuity of public service with adaptive measures in order to allow the people to cope with the pandemic and public officials to ensure the continuity of public order in the region and a transparent communication process.

The central administration in cooperation with every regional and local authority is working on the establishment of immediate health service, region by region, for the benefit of the population, as an essential management measure to tackle this health crisis. Regardless if the decisions are in the hands of the public officials and politicians, communities will have to adapt quickly to allow life to continue. The world after Covid-19 will probably not be what all of us strive to imagine, and for sure the world would never be the same as we all knew it. Nevertheless, we must all together put an effort to fight against this virus and make the most out of this new normality. It is in our hands, as citizens, to support the public institutions – not to act against them – and avoid a global resignation. Even if it will not be easy, even if resistance will rise, we will have to rethink our lives and embrace this transition towards a new beginning.

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Management through Decentralization during the Online School Period

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Abstract

The need to adopt management in the field of education is based on the idea that the school is a social body that repeats the structure and functioning of a community. The transfer and assimilation of the management concept in the educational field must simultaneously take into account the capitalization of the notions of efficiency, global system, methodology, management of human behaviors. Educational management cannot be understood without a leadership practice accumulated within the education system, at all levels. Educational management must be carried out effectively at the level of all decision-makers. They must have the appropriate management experience, knowledge and skills. In the unusual conditions we live in, educational management must function on the basis of new principles, adapted to the current context in which education takes place. The aim of the paper is to highlight the need to adapt management to the current situation, by promoting a clear and coherent policy and strategy, in accordance with the general aims of education and the goals of each organization.

Key words*:* management, school, pandemic
J.E.L.clasification: J53

1. Introduction

This article reflects and capitalizes on various studies in the field of educational management. The main theme is the understanding of management issues in the current conditions of distance learning. The specialized literature I went through offers some leadership models inspired by the realities of the Romanian school. These studied models are the result of intra and multidisciplinary relationships.

Online education requires an adaptation of leadership and instruction through technology to the needs of students and teachers.

2. Theoretical background

The concepts presented in this article have been debated in the literature by various authors. Educational management was achieved through an adaptation of the general theory of leadership to the particularities of the educational system. The management of the school organization was defined by a series of authors as a process and relations manifested within the educational institutions in order to ensure the increase of the efficiency of this process (Ţoca, 2008). Other authors have analyzed the principles of educational management in terms of optimal, strategic, efficient, superior and complex global leadership (Cristea, 1996). In the literature this concept has been analyzed in terms of the following functions recognized by specialists in this field: planning, decision, organization, coordination, motivation, control and evaluation.

The concept of decentralization of the Romanian educational system was analyzed from the perspective of its modernization and adaptation to current realities. Most authors consider it a necessary and long-awaited approach, discussed since the early 1990s (Niculescu, 1992). Through decentralization, school organizations become more flexible, able to adapt more easily to change.

Organizational autonomy can provide in practice examples of good practice for the generation of educational policies. Various authors emphasize the role of personal and local initiative in increasing the quality of the educational act. These initiatives presuppose the existence of an educational policy crystallized around the concept of "leadership" and "managerial competence" (Csorba, 2012).

3. Research methodology

The research carried out in the article was done from a theoretical and practical perspective. From a theoretical point of view, he used concepts promoted in the literature that we presented in the synthesis. Among the existing research methods, we used as a methodological option a qualitative approach to the data through the objective presentation of reality, through the use of general logical reasoning, through subjective interpretation, in accordance with the data provided by direct observation.

4. Adapting school management to current needs

Educational management was simultaneously defined as science and art. As a science, it has its own field of research, with precise aims and measurable results. As art, it is a fact of culture that reflects a certain social or group mentality. Educational management is more than an administrative activity of resource management. It is the art of successfully adapting, in a creative, flexible and practical way, the science of leading to concrete situations, existing at all levels. Under the current conditions, the management activity in school organizations must be adapted to the current situation. Communication through technology, in the online environment, involves certain specific skills. The most important of these is the ability to coordinate, doubled by the ability to communicate effectively and on time. The manager's behavior must be predominantly proactive, to remove shortcomings in time and overcome obstacles.

The managerial process at the level of the school organization reflects the involvement of all members, whether it is the teaching staff, the non-teaching staff or the students. This activity can be analyzed in action, operational, practical, tactical, procedural, theoretical, global, general, strategic, scientific, at the level of the lesson and extracurricular activities, etc. Educational management can be achieved from a strategic point of view (strategic management, exercised at national level), tactical (tactical management, exercised at territorial level and in universities) or operative (operative management, characteristic of all educational institutions: kindergartens, schools, high schools , colleges, faculties). The general principles of educational management have been defined by the Romanian Institute of Educational Management in terms of effectiveness and efficiency. Educational effectiveness is the extent to which the proposed goals have been achieved. The educational efficiency is measured in the obtained results, in the conditions of a reduced consumption of resources. To these general principles, others were added: the principle of economy (the extent to which physical, mental, material, financial resources were used), of effectiveness (as an assessment according to meeting the needs of school, social or professional integration). of the beneficiaries of the system) and of the "added value" (the results obtained by the students, in relation to the results offered by the students of other schools, which have the same general purposes).

Human personality modeling is the ultimate goal of school organization management. He is of special importance, because mul is not an object, but a being endowed with feelings and reason. In education, failures in the training of students have irreversible social consequences, such as incompetence, professional and social maladaptation, delinquency, etc.

Through adaptation processes, educational management can contribute to the optimization of the current educational process. The management modernization can be done with the help of flexible management methods and strategies, which will help to achieve the performances and the success of the students. The managerial methods used in the online school must lead to the achievement of the proposed goal, that of helping students to develop the curricular skills they need in life or the exams that await them.

5. The manager-the most important factor of change

The combination of theoretical tools with methodology, technology and managerial practice provides the manager with a global understanding of the system. It is reflected in the thorough knowledge of organizational culture, in the vision of the organization, openness to new and change, to lifelong learning.

The manager is the person who performs the functions of management. He has a number of objectives, tasks, competencies and responsibilities specific to the position he holds. The manager has a well-defined social and legal status, a series of rights and obligations that distinguish him from all other categories of professionals.

The manager is the key factor that moves all the resources of an organization. For subordinates, he is the boss with hierarchical and decisional power; for external partners, he is the representative of the organization. Globally, the manager is the person who exercises a triple responsibility (ceremonial, social and legal) through the command actions that define him.

The managerial functions and roles in the educational field are identical to those of the general management. This fact means a specialized training in the field of management, but also a managerial training specific to the educational field. The double professionalism, the exemplary behavior, the ability to give transparency to the decision-making process, the superiority of the objectives, the assumption of responsibility, all these aspects turn the manager into a true factor of progress and coherence at the level of the school organization. During this difficult period, a successful manager must clearly demonstrate all these strengths and qualities.

The manager of the school organization must make interactions with various categories of beneficiaries and respond to certain defining imperatives: to anticipate risks, trends and opportunities; decide or choose appropriate strategies and tactics; to organize resources, projects, priorities, norms (procedures); to coordinate human resources (to recruit them, to train them, to train them, to evaluate them, to make them collaborate); to communicate (to listen, to write, to speak, to present, to use feedback); to solve problems, tensions, conflicts, slips, etc .; to perform or create a certain dynamic, through certain levers; to pilot or control - is its most important role, understood in three directions: to supervise (to check if the "screws" are tight), to control (like the pilot the plane's handle), to direct (to open the way). These actions, activities and responsibilities must really be the main elements of the job description they hold.

At this point, the school manager is required, first and foremost, to be able to make quick and efficient decisions. He must give up resignation and routine through a new approach to leadership. Its main task is to make everyone responsible, to achieve consensus at the level of the entire school organization. This means promoting clarity, moral balance, willingness to respond to all problems and suggestions.

6. Decentralization in the context of online schooling

As a basic unit of the education system, the school organization tends to become a miniature society. Decentralization translates the need for identity by adapting external influences in terms of one's own ethos. More than ever, in these pandemic conditions, the school needs autonomy.

Decentralization "consists in the transfer of authority, responsibility and resources to educational institutions and the local community, in order to allow the development of general and financial management, as well as decision-making at the level of each school." (Gherguţ, 2007, p.27).

Through decentralization, the school takes over from educational policies only what suits it best. Decentralization means not only a school decision based on the real needs of students, a careful and rigorous selection of staff, a much higher degree of financial autonomy, but also the need to make decisions based on the real situation of the area in which they live. find out the school, according to the requirements of the community to which it belongs.

More than ever, management is not compatible with a centralized educational policy, which limits the decision-making sphere of the principal or teacher. In the current context, decentralization will allow members of the school community to become, from actors who play

various roles, according to managerial scenarios that do not belong to them, authors with a direct and recognized contribution to the development and implementation of these scenarios.

Sustainable development and the globalization of education through decentralization depend on the adoption of uniform European regulations to ensure quality in education. The objectives of the decentralization process (Cucoş, 2009, p.701) are:

1. streamlining the activity and increasing the performances of the educational institutions by consolidating the autonomy and the capacity to manage the financial and human resources;
2. the democratization of the educational system through the consultation and involvement of the community and of the beneficiaries in the decision-making, through the organizational development based on self-evaluation, external evaluation and public responsibility;
3. ensuring transparency in decision making and in the management of public funds;
4. ensuring access to education by rethinking the allocation of funds based on costs per student and by financing programs aimed at meeting the different educational requirements of students; the new funding system must allow equal allocations for students with the same needs, regardless of the geographical area or the financial capacity of the localities where they study;
5. increasing the relevance of the offer of educational services for all categories of children and students, by correlating education with the local needs of the communities and with the individual interests of the students;
6. stimulating innovation, professional responsibility and public responsibility, at the level of teachers, managers and students.

Regarding the periodic evaluations, the autonomy means a lower dependence on the county inspectorates which, through thematic or other inspections, verify the implementation of the managerial or curricular objectives achieved at the school level. This thematic inspection is more difficult to do in the conditions of online learning.

In order to increase the efficiency of these evaluations, models experienced in states with a democratic tradition can be borrowed, where they are achieved through a system of periodic accreditation, at the request of the school, at certain intervals, by teams of experts in educational management. national. This is partially done in our country, through the National Agency for Quality Assurance in Pre-University Education (ARACIP), whose competencies overlap with those coming directly from the Ministry, which overloads the system, making it cumbersome and reluctant to change.

From a managerial perspective, the advantages and disadvantages of decentralization, in the conditions of the online school, derive from the need to create a decision-making and control autonomy. Comparing the two aspects, balancing them, we notice that the efficiency of decentralization depends on the concrete, honest and professional way in which it can be put into practice.

Table no.1 Advantages and disadvantages of decentralization in the context of online schooling

Centralization		**Decentralization**	
Benefits	-ensures uniformity in the functioning of the organization; -management exerts a more efficient coordination and a more direct control; -decisions are uniform and eliminate the risk of overlapping of different activities.	**Benefits**	-distributes responsibility and accountability to all organizational departments; -disperses power and authority at the group level; -encourages the involvement and participation of several people in decision making; -has positive effects on motivation; -facilitates the communication process.
Disadvantages	-responsibility belongs to a small number of leaders; power is concentrated in the hands of a small group of people, which limits the participation of the majority in decision-making;	**Disadvantages**	-allows a low degree of uniformity regarding the functioning standards of the organization; -forces the responsibility of decision-making by people who are not interested and do not want

	- top leaders have too many tasks to perform because they need to have a global perspective on the organization		to get involved; -can create problems related to the coordination of different organizational levels; -can lead to rivalry and competition, with negative effects on the rationality and general efficiency of the organization; -requires training programs, time and money consuming.

Source: Vlăsceanu, apud. Enache, 2019, pp.33-34

Decentralization, as a reform process, presupposes a change carefully thought out and thoroughly prepared by setting up pilot centers to help the correct application of this process at the level of all educational units. The basis of this reform must be a more thorough managerial training of staff, simplification of working procedures, closer rapprochement between local institutions and the school, design of a coherent strategy. This modernization process must go through certain specific stages and benefit from mechanisms for monitoring, evaluating and regulating the problems that have arisen, so that there is transparency at the level of society.

There is a major risk that decentralization will become anarchy due to the deep politicization of the system, due to the haste and confusion existing in some school organizations at this moment, completely unforeseen. The fears are justified: decentralization depends not only on procedures, but also on the moral profile of the people involved in implementing change.

In the current context it is very difficult to achieve the general functions of management through platforms and IT applications. Although there are several channels of communication, stress and exhaustion are obstacles to achieving the goals and objectives proposed. Each teacher or principal must take appropriate measures to create enjoyable and engaging activities. Everyone's initiative and the way they want to get involved in their own improvement are aspects that make the difference between efficiency and inefficiency. Equally, decentralization means even fewer unnecessary tasks to be able to focus on the really important aspects of the business.

Online teaching and learning are atypical activities that need to be managed with a lot of professionalism, a lot of involvement and enthusiasm. Blasphemy, superficiality, monotony, routine are the aspects that negatively influence distance learning. The lack of a permanent and direct control from the manager can affect the quality of the didactic act. Therefore, the manager must find his own strategies to motivate subordinate staff, and the teacher must more creatively assert his autonomy, independence and initiative. The current situation is difficult, but it can serve as a lesson for everyone. Being a crisis solution, it brought to light the problems in the system, the most important of which can be considered decentralization.

7. Conclusions

In conclusion, decentralization could be a lifeline for the school organization at this time. It could create from the Romanian school, even in the current format, a type of modern organization, focused on competition, quality and performance. However, change implies "the recourse to value, to overcoming prejudices, stereotypes, misrepresentations or fears of any kind" (Anghelache, 2012, p.9).

The oscillation between the idea of centralization and decentralization highlights the inertia and difficulty of moving from bureaucratic organization, based on hierarchy, control and sanction, to democratic, formative, flexible organization based on cooperation, stimulation, responsibility and open climate. In the conditions of the online school, decentralization, decision-making autonomy are closely linked to the efficiency of the management process. This autonomy increases the degree of responsibility and initiative at the level of each member of the organization, which means conditions for creating a real solidarity around a common social interest.

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Women as Leaders in Covid-19 Pandemic Context

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Abstract

Pandemics suddenly and unexpectedly change the course of history, destroy the foundations of the strongest economies, affect humanity and "dethrone" the most powerful leaders. The consequences follows for many years after their passing, stability and prosperity being difficult to rebuild.

The paper has major importance, as we currently facing a new pandemic. It`s a global tragedy, an urgent wake-up call for all of humanity and for the 21st century, COVID-19 is a tough, relentless, unforgiving teacher who is offering valuable lessons about survival, leadership, being a current and present subject in everyone's life.

The pandemic has disrupted important aspects of personal, but especially professional life, therefore, the question our paper is trying to answer is: Can the COVID-19 pandemic be a ramp for launching women into top management positions? The article provides an analysis of pandemics and an interdisciplinary approach to these valuable lessons about leadership.

Key words: COVID-19, pandemics, diversity, firm performance, corporate culture
J.E.L. classification: H12, M14, L25, J24, M51

1. Introduction

The pandemic officially declared by the World Health Organization (WHO) on 11th March 2020 is certainly a Trojan horse of both the local economy and the national and global economy. Crises are characterized by both major and resounding failures and memorable developments generated by opportunities.

In these uncertain times, leaders are showing their face and determines quick approaches to the effects of the crisis. These moments of instability and unpredictability test the quality of leadership, and experienced leaders do not hesitate to make decisive decisions and measures. Thus, they can differentiate between being a loser or taking advantage of the opportunity generated by chaos and confirming or even consolidating their position in the business environment. Organizations that emerge victorious from turbulent times are often characterized by effectiveness.

The findings made by (Schoss et al, 2020) have determined characteristics that can be described as motivational and interpersonal (such as leadership style and motivation) influence work conflicts, while intrapersonal characteristics (such as be self-efficacy) does not influence conflicts of any kind. However, the diversity approach can suffer, as there may be situations where team members pursue different goals and invest substantially different levels of effort, which could eventually lead to more numerous conflicts. Nevertheless, conflicts mediate the relationship between leadership style, motivation and overall self-efficacy, on the one hand, and team effectiveness and satisfaction, on the other.

Therefore, the conclusion is consistent with those stated in their paper (Horwitz et al, 2007) determined that the diversity of members facilitates the performance of the team, despite many factors that influence its results.

This paper addresses the issue of leadership in the context of economic and social volatility and highlights specific characteristics of this type of environment determining the profile of the "savior leader".

2. Theoretical background

According to the World Health Organization, pandemics are caused by new pathogens and very few people are immune to it. Thus, if an epidemic crosses international borders, affecting a considerable number of people and countries, it turns into a pandemic. Some have left behind a small number of victims, but others have changed the course of history, taken the lives of millions of people and destroyed the world's strongest economies.

For a century, mankind has faced a large number of pandemics (Table no. 1), which have led to great human and economic losses. Some have disappeared, while others are still causing casualties.

Table no. 1. The most important pandemics in the last 100 years

Pandemic name	Time period	Number of victims (Deaths)
Spanish Flu	1918 - 1920	50 millions
Asian Flu	1957 - 1958	2 millions
Hong Kong Flu	1968 - 1970	1 million
HIV/ AIDS	1981 - present	35 millions
Swine Flu (H_1N_1)	2009 - 2010	284.000
Ebola	2014 - 2016	11.000
COVID-19	2019 - present	1,33 millions

Source: processing after https://www.visualcapitalist.com/history-of-pandemics-deadliest/

In just two years, Spanish Flu has claimed many lives around the world, including 500.000 in the United States, causing as many deaths as World War I, with some experts even claiming that the pandemic ended the world conflict. The rapid spread of influenza was influenced by conditions on the front or poor nutrition during the First World War.

Asian Flu was another global manifestation of root flu in China, killing more than two million people, including 33.000 in the United Kingdom and 116.000 in the United States.

It is believed that Hong Kong Flu also started in China, being caused by a variation of the H3N2 flu that spread quickly around the world, being the third flu pandemic of the twentieth century.

The disease caused by the Human Immunodeficiency Virus (HIV) has traveled around the world, infecting about 35 million people. For decades the disease had no treatment, but after 1990 infected people could lead a normal life with regular drug treatment, and the year 2020 brings the second world case of cure.

The 2009 swine flu pandemic is a new subtype of influenza virus of Mexican origin that is transmitted to humans and contains genes from swine, avian and human influenza viruses, in a combination that has not been observed in the world until then. In 19 months, the virus has affected 1,4 billion people worldwide, and today the H1N1 virus vaccine is included in the annual flu vaccine.

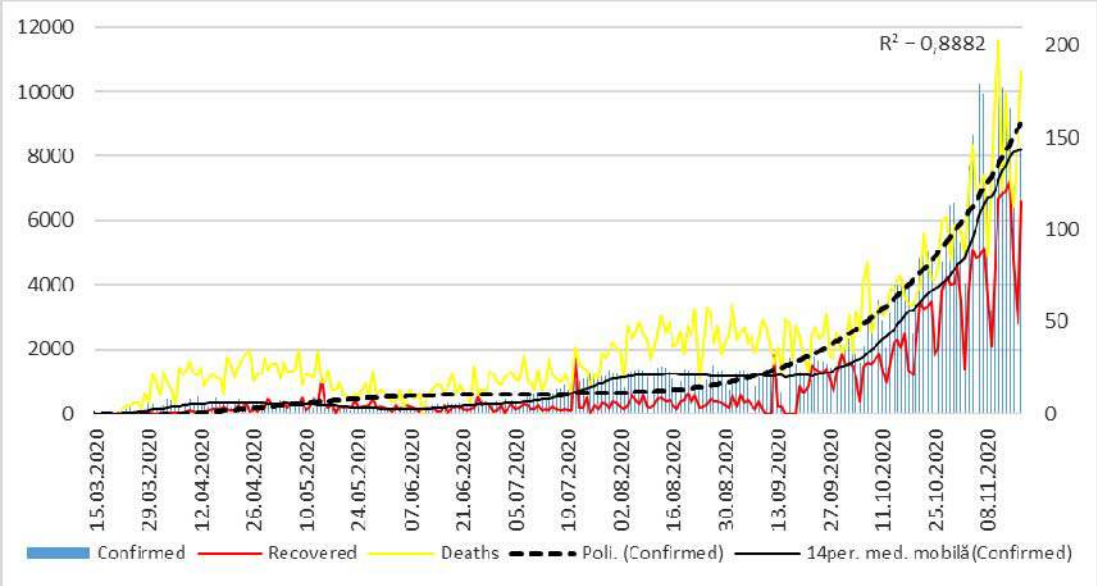
Ebola infection dates back to 1976 when the first case was reported in the Democratic Republic of Congo. The disease is extremely serious, common on the African continent, with a mortality rate between 25% - 90% of infected people. So far there is no approved treatment to treat this Ebola infection, but only "supportive" treatment.

It all came to a standstill for months, and in about a year the coronavirus pandemic (COVID19) wiped out several decades of global growth, from areas such as health, education, tourism to economic activities. According to Oxfam International (a confederation of 20 independent charities focused on reducing global poverty) it is estimated that by the time the pandemic will end, more than half the world's population (currently estimated at 7,8 billion people) he would live in poverty.

The massive spread of the SARS-CoV-2 virus is a major challenge for the entire health system, and all reports present a grim situation, with significant loss of life both in Romania (Figure no. 1) and internationally. Governments' desperate attempt to stop / slow the spread of the virus has led to

travel restrictions, the closure of restaurants, cinemas, theaters, the suspension of sporting events and even a ban on leaving home.

Figure no. 1. The evolution of Sars-cov-2 pandemic in Romania



Source: processing according to the data of the Romanian Government (www.datelazi.ro)

3. Research methodology

Our paper is an exploratory research which analyses the tendency of the modifications in nations' organizational culture using secondary dates: indicators defined by World Economic Forum one hand and the dimension of masculinity defined by Geert Hofstede on the other hand. The implication of leadership in times of crisis are studied using a qualitative method research. Mixing the analytical and descriptive research methods we could generate a verisimilar forecast regarding the role of women as leaders in times of crisis.

4. Findings

Stereotypes and discrimination

White / black dichotomous thinking, like me or not at all, clean / dirty, beautiful / ugly is a cognitive distortion and can generate a rock effect. This anomaly is also known in economics when thresholds are set for certain measures. An eloquent example of this anomaly in the case of Romania: the threshold for social assistance of a family with 2 members is 255 RON (52.5 EUR) in this case the family income is supplemented by another approximately 260 RON (53,6 EUR) and the income total family becomes 515 RON (106,1 EUR); if the family income increases above this threshold and registers income of 256 RON (52,8 EUR), the state allocated aid is no longer granted, and the family income remains 256 RON (52,8 EUR).

However, in order to highlight certain specific characteristics, this type of dichotomous classification is frequently addressed in the literature. Thus, the issue of belonging to gender (male / female) has been and is debated in many fields of activity, but even here, in the sociological sphere, the rock effect makes its presence felt being assimilated with the issue of discrimination. Therefore, the male-female duality was approached in most cases from the perspective of discrimination.

In many cases the term gender is replaced by the term sex, although the differences are obvious between the two terms. According to (World Health Organization, 2020), gender refers to "the socially constructed roles, behaviors, activities, and attributes that a given society deems appropriate for men and women," and gender are the biological and physiological characteristics

that define men and the women". So for a more holistic view we will consider that the duality "men / women" refers to gender, while "male / female" resides in gender-specific characteristics.

We can outline three major paradigms in the field of management resulting from the perpetuation of stereotypes and discriminatory practice based on gender, presented in table no. 2 as follows:

Table no. 2. Discriminatory paradigms regarding gender affiliation

Paradigm	Signification
the glass ceiling	the invisible limit imposed on a certain category of people to develop
the glass escalator	women are less likely to be promoted in sectors where they are in the majority or are present in the same proportion as men than in sectors where the majority are men
the glass cliff	women are preferred to be elected to leadership positions (to overcome "glass ceiling") in times of crisis when the probability of failure is very high

Source: own processing

The International Organization for Public-Private Cooperation known for the Annual World Economic Forum in Davos, which has interests in establishing gender equality and thus stopping discrimination based on gender, has set an index to track the gender gap. The Global Gender Gap (GGI) was first presented at the 2006 World Economic Forum to capture the extent of gender disparities and track their progress over time. This index shows national gender gaps in economic, educational, health and political criteria.

In table no. 3 we presented in parallel the calculated values of GGI for the years 2020, 2018, 2006, (World Economic Forum, 2020) as well as the level of masculinity as defined by Hofstede in his paper (Hofstede et al, 2005) for 28 states (26 within the European Union and 2 Nordic countries known to be high feminine). The data was processed and a color code was created: red being the highest value and green being the lowest value.

Table no. 3 - Gender Gap Index 2020 rankings vs. Hofstede Masculinity

Rank after GGI		Country	Score (0 to 1)			Hofstede Masculinity
2020	2018		2020	2018	2006	
4	3	Sweden	0,820	0,822	0,813	5
2	2	Norway *	0,842	0,835	0,799	8
11	17	Latvia	0,785	0,758	0,709	9
1	1	Iceland *	0,877	0,859	0,782	10
38	27	Netherlands	0,736	0,746	0,724	14
14	13	Denmark	0,782	0,778	0,746	16
33	24	Lithuania	0,745	0,750	0,708	19
36	11	Slovenia	0,743	0,784	0,674	19
3	4	Finland	0,832	0,820	0,796	26
26	33	Estonia	0,751	0,734	0,694	30
35	2	Portugal	0,744	0,733	0,692	31
49	18	Bulgaria	0,727	0,756	0,687	40
60	59	Croatia	0,720	0,712	0,714	40
55	63	Romania	0,724	0,711	0,680	42
8	29	Spain	0,795	0,746	0,732	42
15	12	France	0,781	0,779	0,652	43
90	91	Malta	0,693	0,685	0,651	47
51	61	Luxembourg	0,725	0,712	0,667	50
27	32	Belgium	0,750	0,738	0,708	54
78	82	Czech Rep.	0,706	0,692	0,671	57
84	78	Greece	0,701	0,697	0,654	57
40	42	Poland	0,736	0,728	0,680	64

10	14	Germany	0,787	0,776	0,753	66
7	9	Ireland	0,798	0,796	0,733	68
76	70	Italy	0,707	0,706	0,646	70
34	53	Austria	0,744	0,718	0,698	79
105	102	Hungary	0,677	0,674	0,670	88
63	83	Slovak Rep.	0,718	0,692	0,675	100

Source: processing after (Hofstede et al, 2005) and (World Economic Forum, 2020)

It can be seen that in countries with low masculinity there is a higher index value that tends to 1 (gender equality in all 4 spheres). Moreover, it can be seen that in the period 2006 - 2020 there is an increase in the value of the index in all cases, which indicates that there are slow changes in the national organizational culture in terms of stereotypes related to gender.

The evolution of the indicator was presented in parallel with the level of masculinity defined by Hofstede to highlight the fact that since the date of his study the values of national cultures have changed. However, we note that this dimension of masculinity/femininity can still guide us on the main direction of organizational cultures promoted at the national level.

Crisis leadership

In the context of globalization and unprecedented development generated by the technologicalization, informatization and robotization of all economic spheres, we can say that we live in a complex and adaptive environment but volatile and insecure. Thus, management must continuously adapt in order to ensure the necessary leadership in possible crisis situations. Moreover, man-made disasters and terrorism place an increased emphasis on leadership in crisis situations.

This type of leadership is a special one, different from the usual one practiced in organizations, being characterized by spontaneity and communication qualities.

Crisis management theories recommend situational leadership, proving what is most appropriate in such cases. (Graeff, 1983) and (Hersey et al, 1979) argue that task-oriented leadership is best in crisis while (Johnson, 2018) highlights several specific characteristics of people-oriented leadership. However (Hart et al, 1993) consider that often crisis leadership is not the responsibility of a single person but of a small central group.

(Ruben, 2006) defines leadership skills as one's abilities, abilities, skills and knowledge in order to apply healthy leadership. It groups skills into two categories: theoretical (comprehension) and behavioral (skills). It also defines 5 areas of interest in terms of leadership skills: analytical, personal, positional and communication.

These skills are essential in crisis management, being necessary in building a coherent action plan based on the right decisions that will lead to overcoming difficult situations. Both (Betancourt et al, 2017) and (Tubin, 2017) determined that the most important skills in crisis leadership are: realism, emotional intelligence, problem-solving skills and communication skills.

(Johnson, 2018) proposes a model of approach to leadership in times of crisis in 10 steps by applying human factors avoiding technical issues as follows:

- Correct interpretation of information from various sources
- Allocate the necessary time to evaluate the options
- Decentralization of power
- Do not wait for confirmations
- Delegation of tasks and development of strategic capacity
- Using lists to reduce cognitive load
- Flexibility and creativity
- Be clear and concise in the transmission of tasks
- Check your body language
- Know your limits and stressors

It is important that in times of crisis decisions are tempered even if they must be taken without hesitation and on the spot. Hasty decisions can do more harm than good.

Therefore, we can say that crisis situations are tests for a leader so that he is prepared for chaotic situations that can occur both in the economy and in the organization. Crises cannot be prevented and early preparation for these situations is fundamental.

5. Conclusions

Sars-Cov-2 virus infection is in full swing among pandemics with a rapid and unexpected evolution, and the measures taken to stop the spread have been the most drastic since the Spanish flu to this day. However, it is noted that the outbreaks have not yet been stabilized, as the pandemic is still in the Community transmission stage, without any prediction of how it will evolve in the future.

The impact of the COVID-19 pandemic is grim both in terms of the number of victims and in terms of the economy. In these uncertain times on all levels, coordination and involvement of all decision-makers is essential in order to prevent a major global economic crisis.

The pandemic context and crisis management theory coupled with the discriminatory characteristics of society in general also produce less observable opportunities.

In the last two decades, increases can be determined in terms of the gender gap, which decreases by about 7% in all areas of interest (education, health, politics and economics). Thus, we can say that stereotypes erode easily and lose their strength. Women are no longer just responsible for household chores, they are becoming involved in the execution process and constantly in decision-making processes. The transformational process is still slow, the calculated percentage being too low to demonstrate profound changes in attitudes or changes in the sphere of inertial thinking.

This context as well as the specific characteristics of crisis management in which discriminatory attitudes in the managerial sphere compete make the coronavirus pandemic an unexpectedly favorable context for the launch of women in top management positions.

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Sustainable Education System in the Face of the COVID-19 Pandemic

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Abstract

It is obvious that in this school, but certainly in the next one, the educational system is and will be affected by the evolution of the SARS-CoV-2 epidemic.

The reopening of school units and the resumption of the usual activities are, according to the scenarios and data currently available at national and international level, an unrealistic expectation. During the state of emergency, university education took place online.

In this paper we will analyze the impact that the spread of Coronavirus (SARS-CoV-2 virus) has on students in Bucharest during the period of emergency.

Key words: education, economic, pandemic
J.E.L. classification: M10, M20, M21, M31

1. Introduction

The new coronavirus pandemic has challenged higher education and the need for rapid adaptation. Given the pandemic exercise, it is essential to learn from this period, to identify existing problems and solve them in a timely manner until the beginning of the new university (Romanian Ministry of Education, 2020).

Universities have demonstrated their major role in responding to the COVID-19 pandemic, and research, innovation and education are key to long-term strategic resilience. Investing in them by improving collective skills and knowledge will lead to lower costs in the face of a future crisis (European University Association, 2020).

2. Teoretical background or Literature review

The analysis of public policies as well as the recommendations we propose to the public debate have as a starting point the expression of a personal concern regarding the situation of the educational system in Romania, in the current context of measures to prevent the spread of SARS-CoV-21 (Florian & Sebastian Țoc, 2020).

The absence of a serious debate in the public space regarding the short-term (until the end of the school year), medium (school year 2020 - 2021) and long-term (period 2021 - 2027) plans, more than one month after the closure of the school units, is a serious cause for concern.

Recent events are exceptional and have affected all states equally, so the situation in Romania is not unique (Florian & Sebastian Țoc, 2020).

The distance learning exercise has shown in many courts how unprepared digitalisation is in terms of higher education. One of the main challenges of distance learning is to ensure the inclusion and equal access to quality distance learning for all beneficiaries. Some students, including teachers, may lack digital skills, access to electronic devices or internet connection or adequate space to study at home, which can be a major obstacle, especially for students from a disadvantaged socio-economic background, from a rural area or from an isolated area.

At the same time, students with audio and / or visual disabilities can be very affected, requiring additional counseling and support and resources adapted to the learning activity. Although the relocation of teaching activities to the online environment has allowed the learning process to continue, online teaching cannot fully replace the face-to-face teaching experience.

We appreciate that this change has taken place in an unexpected and fast way, without a smooth transition to online teaching, planned and adapted along the way. Some teachers have been put in the position of teaching online for the first time and in this context, it is expected that there will be problems and shortcomings, but the experience of online teaching so far has not developed the full potential of online teaching.

Respectively, since online teaching has been deficient in some cases, it is necessary to improve the problematic aspects and not to give up this method. Of course, there are disciplines that are difficult to transfer in the online environment such as the predominantly practical ones, especially in the field of technical sciences, health and vocational sciences.

On the other hand, when it comes to sweet students, they are less prepared in terms of digital skills compared to the younger generation, which can affect their opportunities for improvement and retraining (ANOSR Romania, 2020).

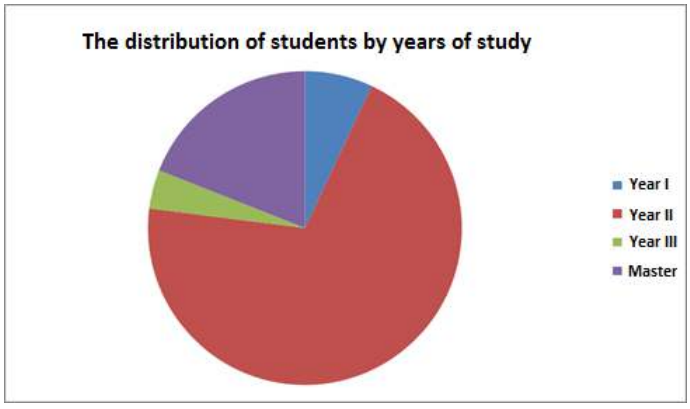
3. Research methodology

According to the way of collection and the nature of the information, this research is a qualitative one. The aim of the research is to discover the extent of the relationships between the variables, one dependent / explained and the other, and the other independence and explanatory.

The objective of the research was the impact that the spread of Coronavirus has on students in Bucharest, during the period of establishment of the state of emergency, in which it went from teaching in the classroom to online teaching, and the population was isolated at home.

The research was conducted on a representative sample of students from the Academy of Economic Studies in Bucharest, consisting of 102 respondents. The data collection was based on an online questionnaire conducted between 1-14 May 2020 (77 female and 24 male). Of these 7% are students in year I, 70% students in year II, 4% in year III and 19% in Master student), according to Figure 1.

Figure no. 1 – distribution of respondents per year of study



Source: Data resulting from the processing of questionnaires applied

4. Findings

The average duration of application of a questionnaire was between 5 and 8 minutes. Following the completion of the questionnaire by the students, the following statistical data were obtained bellow and described accordingly. It was performed a study on students' perception of daily activities and learning during the isolation period May 2020.

How students have adapted to online learning conditions in the context of the COVID pandemic, the results are presented in Table 1.

Table no. 1 Adapting students to online learning conditions

Nothing	In some wise	To a large extent	To a great extent
11%	40%	28%	21%

Source: Data resulting from the processing of questionnaires applied

Forty percent of the students who answered the questionnaire consider that they have not been able to fully adapt to these learning conditions. However, a sample of 49% of those surveyed believe that they have managed, to a large and very large extent, to adapt to the new conditions of learning and interaction in the online environment.

The present research has aimed at identifying the feelings and thoughts that the students perceived during the period under study, for example if they perceive it as a holiday, if they wish it to end as soon as possible or to continue, how to communicate with friends and family (see Table 2).

Table no. 2 Students' feelings and thoughts during the emergency state

Answer	Nothing	Small measure	To some extent	To a large extent	To a great extent
I want this period to end sooner	4%	4%	9%	17%	66%
Although I wanted a vacation, I didn't imagine it would be like that	2%	9%	16%	18%	55%
I like this period, I would like it to last as long as possible	56%	26%	12%	3%	2%
Online courses are useful, but they are not as interesting as those organized face to face	9%	15%	28%	25%	23%
I miss the face-to-face interaction with teachers, colleagues, friends	4%	10%	9%	23%	54%
It's hard to stay home alone all the time	8%	10%	16%	22%	44%
I feel good only with my family at home, during this period	12%	14%	41%	18%	15%
I have more time at my disposal	8%	7%	23%	28%	34%

Source: Data resulting from the processing of questionnaires applied

During the state of emergency (March 16-May 14, 2020), young people faced different thoughts and experiences that changed, for many of them, their perception of life. 66% of the respondents expressed their desire to end this unpleasant period in everyone's life as soon as possible, just as 56% of them consider that they do not like this period and want it to end as soon as possible.

The vast majority of those surveyed consider (54%) that, to a large extent, they lack interaction with teachers, colleagues and friends, and that it is difficult to stay isolated at home (44%).

From the centralized answers, only 15% of the respondents largely agree that they feel good only in the interaction with the family, which justifies the 54% percentage of the lack of interaction with the social environment of which they are part.

The organization of the daily program of students in the context of online learning is presented in Table 3.

Table no. 3 Organization of the daily program of students

Answer	Nothing	Small measure	To some extent	To a large extent	To a great extent
I organize my daily schedule on my own	3%	13%	25%	32%	27%
It's easy for me to follow my schedule	2%	15%	46%	19%	18%
My program is organized according to online learning activities	10%	14%	18%	26%	32%
I often feel like I'm wasting my time	9%	16%	25%	25%	26%
I find it harder to concentrate	11%	22%	19%	30%	18%
I don't think I need organization during this time	30%	36%	19%	9%	6%

Source: Data resulting from the processing of questionnaires applied

The isolation period and the online teaching-learning activity are considered to be a challenge for students, in terms of time management. From the interpretation of the data collected, it appears that 76% of those surveyed (to some extent, large and very large), consider that, most of the time they waste time, and only 25% consider that they are efficient in the management of time and in organizing daily activities.

A quarter of the students consider that during this period, their ability to concentrate on the activities carried out is lower, 46% of them consider that they manage only to a certain extent to easily respect their program, while 37% succeed in large and very to a large extent its observance.

An important aspect of research was to identify the daily activities undertaken by students during the period of isolation at home and which had a positive impact on their overall well-being. The student responses, as well as the results of the interpretation of the questionnaires, are represented in Table 4.

Table no. 4 Daily activities performed by students during the period of isolation at home

Answer	Nothing	Small measure	To some extent	To a large extent	To a great extent
I talked to my parents about what is happening in the country and in the world	8%	18%	23%	36%	15%
I inquired about the measures of (self-protection	3%	4%	20%	29%	44%
I did sports in the living space	16%	15%	15%	21%	33%
I communicated with colleagues and friends	1%	2%	25%	24%	44%
I participated in online learning activities with my colleagues	3%	6%	12%	30%	49%
I listened to music	6%	5%	14%	18%	57%
I saw movies	5%	10%	13%	25%	47%
I read what I wanted	11%	25%	29%	20%	15%
I did activities together with my family	11%	12%	38%	23%	16%

Source: Data resulting from the processing of questionnaires applied

The period of two months of emergency, determined the adaptation and limitation of social activities, which students performed in open space and in specialized places (cinemas, parks, libraries, gyms, participation in concerts, shows, outdoor activities , etc.), when limiting them only in the living space.

Thus, the vast majority of them responded that to a large extent they carried out the following activities in the home: sports, socializing with colleagues and friends, listening to music, watching movies, watching TV shows for news and debates.

What can be remembered from the interpretation of the results is that the largest share, of 29% of students, answered that only to a certain extent they read what they wanted, and 88% of them answered that only to some extent they carried out joint activities with the other members of the family.

One research objective was to identify to what extent the online learning activity was effective, well organized, demanding or considered to be an opportunity for students to use digital technology and online learning. The results obtained are centralized in Table 5.

Table no. 5 The perception of online learning

Answer	Nothing	Small measure	To some extent	To a large extent	To a great extent
Interesting	8%	19%	40%	27%	6%
Tiring	8%	19%	32%	28%	13%
Useful	8%	14%	41%	25%	12%
Well organized	12%	10%	54%	14%	10%
More demanding than the activities carried out at the faculty	11%	22%	26%	19	22%
A good opportunity to use digital technology (internet, applications, laptop, tablet, smartphone, etc.)	8%	17%	25%	23%	27%
Opportunity to discover new things about me	1%	18%	32%	32%	17%

Source: Data resulting from the processing of questionnaires applied

From the results of the interpretation of the questionnaires, it has been demonstrated that all respondents have at their disposal the technological and information equipment (computer, tablet, laptop, internet connection) needed for online learning. These results can be viewed in Table 6.

Table no. 6 Technological equipment used by the students in online learning

Answer	Nothing	Small measure	To some extent	To a large extent	To a great extent
I like to interact online with other participants (teachers, colleagues).	4	25	33%	30%	8
The teachers carried out interesting learning activities in the online environment.	10	27	37%	18%	8%
Online learning is less friendly than face-to-face learning.	9%	27%	19%	22%	23%
I am satisfied with the schedule of online classes.	13%	25%	40%	14%	8%
I feel ready to use digital technology (internet, applications, laptop, tablet, smartphone, etc.)	1%	9%	12%	20%	58%

Source: Data resulting from the processing of questionnaires applied

Another objective of research was to identify to what extent universities were prepared to manage the educational act effectively in the emergency.

Students were asked what learning methods and assessment tools were used in online teaching by their teachers. 91% (Table 7) of them said they were using in online teaching classes the educational platforms of "G suite Google Classroom", both audio and video.

Table no. 7 Educational platforms and visual tools used in online learning

Laptop, computer, tablets	Telephone	They have no equipment
96 people	92 people	0

Source: Data resulting from the processing of questionnaires applied

5. Conclusions

The way the students were satisfied with online teaching-learning-evaluation is reflected in the results achieved in Table 8.

Table no. 8 Degree of satisfaction of students in online learning

Written messages (email, WhatsApp, Google Classroom)	Audio/Video	Nothing
93	92	0

Source: Data resulting from the processing of questionnaires applied

From the results of the survey, the following can be concluded: 66% of respondents replied that they were largely excited about the online interaction with teachers and other colleagues, which means they adapted to the successful period of isolation at home, but still feel that online interaction is less user-friendly than face to face used in people-to-people relationships.

Most students replied that they were satisfied with the way teachers carried out their online teaching activities and that they were prepared in the future to use the new technology in their student work.

The efficiency of the quality of distance learning was perceived by students as being efficient and very effective in the education process, as shown in Table 9.

Table no. 9 Quality of distance learning

Answer	Very low	Low	Normal	Efficiency	Very efficient
Written messages (email, WhatsApp, Google Classroom)	2%	12%	34%	39%	13%
Audio/Video	3%	4%	24%	48%	21%

Source: Data resulting from the processing of questionnaires applied

Higher education institutions are invited to be as flexible and pragmatic as possible in order to help students achieve the results indicated in the study contracts, regardless of their geographical location (for example, it may be agreed to adopt the distance learning option, with the help of digital tools).

This flexibility will help students returning to their home country in particular to complete their courses at the host institution and obtain European Credit Transfer and Accumulation (ECTS) credits on the basis of fully recognized distance learning agreements (European Commission, 2020).

Accelerated change and existing challenges now require more than ever effective, efficient and sustainable strategies on the part of universities and the Government.

This fact is even more necessary under the pressure of limited financial resources that are poorly managed, they will only generate losses. We thus encourage universities to engage in the practice of exchange of experience with counterparts at national level and in other countries to ensure the most effective solutions.

A prepared Romania for future crises means a Romania in which Governments and universities assume adequate and sustainable funding to increase their contribution to a long-term recovery (Thomas Estermann, et al., 2020).

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Strategy Manager – as a Position in the Top Management of Organizations

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Abstract

The organization is an open system connected to the external business environment through the inflows of economic resources, on the one hand, and the outflows of goods or services, on the other. The success of the organization depends on the degree to which it manages to anticipate change and integrate into the dynamics of the environment. We are therefore witnessing changes in the management process, in the complexity of managerial functions, in management methods and practices. Under these conditions, the management's vision of the organization becomes imperative. The new manager will have the global vision on the organization. Its purpose is not only to predict the evolution of the organization, but also to create the future in the present time, to shape it according to the strategic vision. It is time to break away from the guild of managers and to be placed distinctly within the management system, the visionary, the one who operates with the management of the future - the strategy manager.

The purpose of this study is to highlight the need to delimit within the management structure of the role of strategy manager, as an individual position, with objectives, responsibilities, tasks, specific skills.

Key words: strategic management, strategy, competitive advantage, manager, management process
J.E.L. classification: M10, M12

1. Introduction

The activity of the organization is constantly subject to external threats. The primary role in the management and development of an organization belongs to the management system. It must be constantly adapted to the current and future needs of the managed organization. The ability of managers to identify, eliminate or reduce the effects of external environmental risks determines the viability of the organization.

The manager has to lead two organizations simultaneously: the current organization and the future organization. He leads the first with the help of functional compartments and organizational systems (Rodica M. Candea, 2005, pg.441). However, in order to lead the "organization of the future", the manager must have a vision of it and realize it, to be a good strategist.

Under these conditions, the question arises: What is a strategist? Does it have a distinct position within the organizational or management structure?

The answers to these questions are the subject of this study.

2. Theoretical background

The father of the concept of strategic management is Professor I. Ansoff (USA, 1973), who defines it as "a way of managing the company by ensuring a close link between strategy and production."

The definition in the Business Dictionary states that strategic management "involves the systematic analysis of factors associated with customers and competitors (external environment) and the organization itself (internal environment) to provide the basis for supporting optimal management practices."

The strategy was first defined by Michael Porter and Jan Rivkin of Harvard Business School as "an integrated set of options that position the organization in a particular field to achieve superior long-term results" (Michael Porter, Jan Rivkin, 1996).

In the opinion of professors O. Niculescu, P. Nica in the category of managers includes "persons who hold management positions, exercising their management attributes in accordance with the objectives, competencies and responsibilities contained in the job description, specific to the position they hold".

Studies, with and about managers, on their role, significance and complexity, are found in abundance in the literature and beyond. But, those who put the strategic manager under scrutiny, are in insufficient numbers or usually overlap with those who approach the notion of general manager.

Theoretical approaches are found in the authors Candea R.M. and D. Candea in the paper "Emotional skills and success in management" from 2005.

In a 2015 article in Biz magazine, "Managers with strategies for their teams" Corina Diaconu Managing Director at executive search and human resources consulting firm ABC Human Capital, captures the role of the strategic manager as a professional maker, as a mentor for employees, provider of professional knowledge and tips from their own experience.

Practical aspects related to the strategist manager can be found in Roxana Lupu's article in the magazine Cariere in which she concludes that "the strategist in Romania, ... has a direct telephone line with the general manager and is called when the situation really requires it, ... she is almost a Morgana Girl on the Romanian labor market: either she is too expensive for companies to afford, or they don't even think about the fact that she might need him."

3. Research methodology

The research methodology in the case of the proposed topic is the qualitative analysis of the data secondary to the studied phenomenon. As an interpretive message process, deduction was used, observing and interpreting aspects of the phenomenon.

- Studying the bibliography in the field was the first step of the research;
- A review was then made of studies, reports, theoretical and practical articles that addressed the same topic;
- The concepts subject to research have been defined.
- The issue was discussed from general to private.

4. Findings

Starting from the definition of the manager as "a person who exercises the functions of management, by virtue of the objectives, tasks, competencies and responsibilities specific to the position he holds" (Stanciu S., 2001, pg.55), we deduce the idea that for each activity of the organization there is a specific manager function, such as: general manager, economic manager, sales manager, human resources manager, production manager, project manager, etc.

Managers hold key managerial and executive positions, creating and implementing business policy. The managerial position involves a complex number of tasks: elaborates and implements the organization's strategy, business plan, sets objectives, provides the necessary resources to carry out the activity, coordinates the activity of subordinates, analyzes the results obtained, in other words ensures the organization's guidance. The sphere of activity of these categories of managers is that of operational management, ie those who lead the organization today. Operational management consists in managing the daily activity of the organization.

But, the organization is a dynamic entity, constantly changing both under the action of internal and external factors. The organization of the future is a vision, a projection of what it wants to become. Thus, strategic management becomes an urgent necessity in the daily managerial activity of the organization.

Strategic management is a broad and complex process by which the top management of the company establishes, based on anticipating the changes that will occur inside and outside it, its long-term evolution and the changes it will achieve, ensures rigorous formulation, application and the continuous evaluation of the established strategy.

It outlines the idea that the primary role of managers is to determine how the organization to gain competitive advantage, an idea outlined in the definition of strategic management "consisting of analysis, decisions and actions that an organization takes to create and maintain benefits competitive ”(Dess, Gregory G., Lumpkin, GT and Taylor, Marilyn L., 2005). But the competitive advantage is a component of the strategy along with the vision, mission, fundamental objectives, strategic options, resources and strategic deadlines. We can say, synthetically, that strategic management deals with the management of the organization's strategy.

The strategy, defined by Chandler, "consists in determining the long-term goals and objectives of an organization and allocating the necessary resources to achieve them" (Chandler, 1989).

According to DEX, strategy is "a component part of military art, which deals with the preparation, planning and conduct of war and military operations" or "the art of skillfully using all available means to ensure success in combat" (DEX, 1998).

In the field of business, it was taken over only in the middle of the twentieth century in American companies on the grounds that in business "any market is a war", and the competitive struggle to ensure the survival and development of the company must be based on a strategy.

In this context, a strategist is needed to skillfully carry out tactical operations.

The strategist comes from the Greek "strategos", the military commander of a polis, one of the ten supreme magistrates of Athens, elected for a period of one year. The meaning was then transferred to the military leader stratos = army, egos = leader.

Strategy managers are the people responsible for the success of an organization, for its future.

To accomplish this goal, their task is to:

- analysis of the organization on its component parts;
- synthesizing the results into a unitary whole and drawing an overview;
- forecasting the evolution of the organization in the future.

All this in conjunction with:

- analysis of external environmental factors;
- forecasting the occurrence and evolution of future events.

These outline the specific activities of the strategist manager, such as:

- study of trends in the field of activity of the organization
- evaluation of organizational performance
- assessment of opportunities and risks from the external environment
- elaboration of forecast models
- formulation of organizational strategies.

There is no standard theoretical training for the position of strategic manager.Practice shows that experience in various leadership positions gained in several organizations in the same field is essential. Thus, excellent strategic managers resulted from those who previously held positions of General Manager or CEO, Business Development Manager, Operations Manager, Marketing Manager or PR Manager.

In the current management structure, they perform various functions, such as: chairman of the board, executive director, advisor, etc. In general, they occupy high positions in the management of the organization, having considerable authority in the decision-making process, but they can also be found in middle or lower management positions. Therefore, the strategic manager is not delimited as the title of a special function, belonging to a single individual, but is rather a characteristic of a cumulated function by all managers involved in the formulation and implementation of the strategy. As a result, the notion and title of strategist manager is confused with that of manager as strategist.

In Romania, this concept is included in the area of other job descriptions, such as Chief Strategy Officer, Business Consultant and even General Manager. In some companies, external consultants or experts deal with the implementation of the strategy, due to the fact that the role, skills and competencies required to perform this function are combined with other qualifications and competencies, and from a functional point of view it is difficult to separate the role of strategy related roles.

According to a study conducted by Harvard Business Review, which was attended by 700 executives from several industries, it was found that:

- 8% of leaders excel in both strategy and execution;
- 16% of them are efficient either in the elaboration of strategies or in their implementation;
- and a considerable percentage of 63% do not have the necessary skills for at least one of the two strategic management plans.

Internationally, companies such as Sun Microsystems, Cadbury Schweppes, General Motors, Tyco, Campbell Soup, Morgan Stanley Network Associates have taken steps and introduced the strategic manager as a new position in top company management, in recognition of the importance of strategic management in the business world.

Under these conditions, it becomes imperative that the strategic manager be put in the spotlight, being given a distinct function and status, individually within the top management of the organization.

The arguments that support this desideratum are the following:

✓ The role and importance of strategic management at the organization level. The increased pace of globalization, the dynamics of internal and external factors, intensify the competitiveness between participants. In order for the organization to face the challenges, strategic thinking focused on this dimension is needed. As Michael Porter put it. operational management aims to "do things better", while strategic management aims to "do things differently". And for that you need a new manager, the strategy manager.

✓ Modernization of the management system. A modern managerial process cannot be conceived without the model of strategic, projective and prospective thinking, regardless of the nature, size, functionality of an organization, or the ratio of internal and external forces to the organization. Strategic management is an essential component of a professional management used in performance organizations.

✓ Professionalization of management. We are witnessing an intense process through which the position of manager becomes a profession. In practical terms, this phenomenon is illustrated by the existence of numerous schools, institutions, training centers for management, which provide them with the necessary elements for a "certification in office" and the essential bases for its professional exercise.

✓ Management specialization. By specialization understanding the action of consecrating the study and application of a certain branch of science, technique, etc. The application of strategic management at organizational level imposes on the managers specific features, special characters. Under these conditions, we are witnessing the emergence of new managerial functions alongside those already established, such as that of the project manager. Thus, a new function is outlined in the managerial system, with attributions focused on strategic management, respectively that of strategy manager.

It is not out of place to say, nor the fact that the time has come for the status of strategy manager to come into its own, at a distance of several thousand years since it was first used in ancient Greece, at the beginning of the century V i.e.n., consecrated by Alexander Macedon (336 BC-323 BC) one of the first great military strategists and leaders in history.

5. Conclusions

Changes in the economic environment, and not only, cause changes in the way organizations are run. The management of organizations is under the impact of many major variables, with favorable and unfavorable developments that require a permanent process of change.

In making changes in the management of the organization, a decisive role is played by changes in the external environment.

- identifying the changes that need to be made in organizations, anticipating the successive states to be achieved and the factors that influence these changes;
- knowledge and application of managerial mechanisms through which these changes can be promoted and kept under control.

Contemporary management requires the fulfillment of much more complex managerial functions, the adoption of new management concepts and practices.

Management, as defined by P. Drucker in his book Innovation and the Entrepreneurial System, is the "new social technology"… the vehicle for profound changes in attitude, values, and above all in behavior (Drucker P.F, 1993). As a result, driving the "new social technology" requires the strategic manager, the "new driver" with skills, tactics and strategic vision, which will allow him to guide the vehicle to new horizons.

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Benchmarkingul - a Path to Excellence in Romanian Organizations

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Abstract

Benchmarking is a tool of analysis that involves making direct comparisons between the functional or operational processes of organizations belonging to different sectors of activity, in order to identify sources of competitive advantage. In economic practice, benchmarking is a real state of mind that stimulates the activity of managers and staff in constant search of progress. It often becomes an integral part of a company's culture. The application of this method is conditioned by the existence of a specific structure, the so-called "benchmarking clubs", usually animated by a consulting firm. This paper aims to highlight the results of research on the importance of the benchmarking method, as a tool for stimulating and constantly seeking progress in Romanian organizations.

Key words: Benchmarking, performance, excellence,
J.E.L. classification: M10

1. Introduction

Benchmarking is an approach that consists in confronting the own practices of the organization with those of other organizations. Practicing benchmarking is equivalent to going in search of the best methods used in an activity, these methods allowing the company to improve its performance. Benchmarking goes beyond the traditional competitive analysis because it not only reveals what the best practices are, but also gets a clear understanding of how these practices are used. Benchmarking gives managers realistic goals and allows them to develop strategies to eliminate gaps. Although benchmarking is a widespread tool worldwide, in Romania it is very little used, so it is not possible to talk about the existence of an experience regarding this practice.

2. Theoretical background regarding the benchmarking

The concept of benchmarking, which comes from the English word "benchmark" (terminal, reference) is widely practiced in the USA. This concept is based on the fact that the outside world is constantly evolving and consists in comparing one's organization with one or more organizations identified as a reference in a particular field. Benchmarking has been practiced since the 1950s by some international companies. The term covers a fairly simple idea, namely to find in the world, that company or those companies that perform in the best way a process or a task, to later adapt that process within their own company. In other words, it is about comparing with the champions in a certain field, to be inspired by their experience in order to approach excellence. Sometimes the results of a benchmarking action are spectacular. Benchmarking aims at quality, performance, the path to excellence and follows a transfer of management and action methods designed to improve the management of the organization.

The **stages of benchmarking** (Niculescu, 2003, p.52):

I. The planning stage, which involves:

- identifying the key processes on which the study will focus, depending on their economic impact, their strategic importance for the future and the receptivity of employees to change;
- identifying best performance, managerial practices;

- identifying the possibilities and concrete means of applying these practices in the patrimonial entity analyzed.

II. The analysis step, which involves:

- determining the major differences from the reference leader;
- setting performance targets for the next period.

III. The integration of new management methods and techniques implies:

- establishing the action plan in order to achieve the set objectives;
- specifying the necessary means, in coherence with the objectives and the action plan.

IV. The actual action, through:

- implementation of the established actions;
- control / information on the different results.

V. Evaluating benchmarking and validating the effectiveness of results.

We can distinguish four **types of benchmarking** (https://ro.wikipedia.org/wiki/Benchmarking.)

a) *Internal benchmarking* consists in making internal comparisons, ie between different departments, services or subsidiaries of the same company. Internal benchmarking is described by Bengt Karlof and Svante Ostblom as "a fabulous way to implement change and learn how benchmarking works." According to the authors, except in a few special situations, it is always possible for a company to identify its own development possibilities starting from the study of its own operations. Internal benchmarking will lead to an improvement of about 10% in performance. Internal benchmarking should not be seen as a substitute for external benchmarking or functional benchmarking, but as a first step in seeking excellence and consensus on the actual method of applying benchmarking.

b) *Competitive benchmarking* involves the comparison between the organization and other similar organizations, even identical. When we talk about this benchmarking, we often think of direct competitors. In fact, they are often the first target of the benchmarking study. Benchmarking partners can also be equivalent organizations operating in other countries and serving other marketsFor many authors, benchmarking against direct competitors is competitive supervision, and this practice must be done routinely by companies. The approach will be completely different when benchmarking is applied to competitors operating in the same market, compared to competitors operating in different marketsIt often happens that competing entities collaborate on benchmarking studies in areas where information is not considered strategic. This type of benchmarking generally leads to a 20% improvement in performance.

c) *Functional benchmarking.* If the company is limited to competitors in its industry, it risks not achieving the expected results. In fact, they need to be compared to the leaders in each position, even those outside the industry. This benchmarking of leaders can prove to be very productive, especially since gathering information proves to be, in most cases, easy. In fact, a company that is a leader in a particular sector only gains if it shares information with companies in other sectors. Thus, fruitful collaborations can be developed.

d) *Generic benchmarking.* This type of benchmarking is obviously the most difficult to design and implement. Not only the curiosity but also the ingenuity of all the actors in the process must be appealed to. This type of benchmarking is probably the most productive and innovative, with performance improvements being able to exceed 35%. For example, a high-tech company may compare its logistics department to that of a supermarket. This benchmarking is close to functional benchmarking, but it has an essential difference. In fact, it consists in adapting a technology (which has already proved its efficiency) apparently very far from the company's sector of activity. A telling example is that of the barcode. The food industry was the first to use this process to collect data automatically. Currently, this method is used from identifying blood samples in hospitals to locating items stored in warehouses.

Benchmarking can provide multiple **benefits** to organizations, as follows:

- improving to the level of excellence by observing best practices;
- identifying ideas and resources for improvement that are beyond the boundaries of their own environment, whether they are individuals, departments, companies, countries ;
- initiating an active and proactive learning process within the company,
- the need for a better understanding of the processes within one's own patrimonial entity;

- developing effective strategic objectives, by knowing the objectives and strategies of other successful companies;
- establishing a reference standard for measuring performance;
- understanding and meeting the ever-changing needs of consumers.

3. Research methodology

The present research is based on the following methodology: selection, description and comparison of the phenomenon (state kindergarten, respectively private kindergarten), implementation of the whole theoretical approach to the benchmarking stages, and aims to discover the main motivation of families with children with the age between 2 and 6 years to choose to enroll their children in state kindergarten or private kindergarten.

Kindergarten is the place where the child will spend most of the day. Proper care of a young child can be as difficult as choosing a college for a teenager. As a parent, it is your duty to make sure that your little one is happy and safe, raised in an educational, fun and cultured environment.

About 70% of parents send their child to kindergarten or other such care centers. Even if you choose a kindergarten, there are some specific things that must be followed in order for the little one to receive quality care adapted to his developmental needs.

The most important thing in determining the type of care your child needs is to know your own child, his temperament, his interests, what he likes and dislikes, his health and behavior.

For a child of about 2 years, must be taken into account, the developing game and learning style, interaction with other children, intellectual curiosity and the need for individual attention. Your family's values and emotional needs must also be considered in determining the type of care you want for your child. Some parents are very worried about leaving their young child with only one person, while others prefer individualized care. The first step to look for in a kindergarten is: a list of the requirements that the parent wants, such as experience, religious beliefs, discipline and / or flexibility but also its cost, location and reputation. Whether a private kindergarten or a state kindergarten is chosen, their way of raising the child, the discipline and the behavior in relation to the personal vision of raising and caring for the child are taken into account.

The first questions that parents ask are about the accreditation of kindergarten, the curriculum and how it adapts to the needs of their child. They look at the facilities, they want to know more about the size of the groups of children and about the qualifications of the teachers. School buses, meals and uniforms are also often discussed when parents decide to enroll their children in kindergarten.

The planning stage: some parents find out in advance, build a plan of educational activities and choose for their children what best suits their abilities. Those who are ready to take risks and choose a kindergarten on the last hundred meters, must know that enrolling in kindergartens requires time, money and a lot of stress. The number of accredited private kindergartens has increased in recent years, and parents do not turn to the private system from the very beginning, although they admit that one of the weaknesses of the public system is the quality of services.Families with material possibilities take into account from the beginning the attendance of a private kindergarten, the only impediment being the confidence in the experience of the teaching staff. The registration process is difficult, sometimes it is necessary for the parents to be interested a year in advance about the child's enrollment in a state kindergarten. The vast majority of state kindergartens are accredited by the Ministry of Education and Research (MER), unlike private ones which, in proportion of 95%, have only an operating license from the MER. The next step in gathering information and establishing a working database is analysis.

The analysis stage involves following the criteria: professional training of teachers, hygiene and food preparation, number of seats in the group, communication of representatives with parents, extracurricular activities, facilities, the appearance of the building and classrooms, work schedule. The synthesis of these criteria is presented in table no. 1:

Table no.1 Synthesis of the analysis of the criteria from Private Kindergarten versus State Kindergarten

Criteria	Private kindergarten	State kindergarten
Professional training of teachers	Young, qualified teaching staff, eager to improve, promote Current teaching methods	Experienced teaching staff Outdated teaching methods
Hygiene and food preparation	Good hygiene of the food block; the food will usually be brought in catering	Hygiene leaves much to be desired; Own kitchen, cutlery and crockery are old
Number of seats per group	Groups with a small number of children (12-15)	Groups with a large number of children (20-25)
Communication of representatives with parents	Very good, open	Good
Facilities	New furniture and educational materials Large number of optional activities	Old furniture and equipment Low number of optional activities
The appearance of buildings and classrooms	Limited outdoor space, small classrooms	Large indoor and outdoor spaces; rooms of spacious classrooms
Work program	Extended until 8 p.m; a holiday week of Christmas / Easter and maximum 1 month summer vacation	Short working hours, until 5 p.m; the holiday is at least 3 months a year

Source: 10 exploratory meetings with 5 parents' families.

4. Findings

Each of its variants has its advantages and disadvantages. The criteria underlying the choice of a kindergarten, state or private, depend on the material resources of the parents and the trust in the educational program offered by each institution. The didactic program is the same - the one elaborated by MER, both types of kindergartens having the possibility to organize classes in foreign language, music, sports, etc. for the children of the parents concerned, they are subject to a separate fee, as they are optional activities.

One final conclusion: we can say that the future of kindergartens in the public system is not endangered by the private system, but even it can be improved by it. The two types of kindergartens will coexist, as before. In other words, private kindergartens are already operating in a competitive environment and are increasingly taking into account the demands of the beneficiaries. This could also have a favorable influence on state kindergartens.

5. Conclusions

The benchmarking method is an important tool available to managers, who can thus increase the competitiveness of organizations, provided that:

- information is an essential resource for ensuring the performance of companies;
- organizations can achieve qualitative leaps, without high costs, by adopting new operating principles and by forming a new organizational culture.
- the adaptability and flexibility of companies are ensured, first of all, by the quality of human resources and less by the material or financial component..

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An Insight into Organizational Team Ambidexterity

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Abstract

The purpose of the present article is to bring another perspective on the concept of ambidexterity in organizations by emphasizing the main processes through which work teams become ambidextrous. Our analysis is intent upon how apparently are delineated the two sides of ambidexterity, exploration and exploitation, within organizational work teams and whether their characteristics can be separately addressed during the work process. In doing so, we propose a succinct framework by which team ambidexterity can be more easily comprehend and realized.

Key words: work team, exploration, exploitation, ambidexterity, learning
J.E.L. classification: D23, D83, L29, M12, O30

1. Introduction

Organizations are increasingly relying on teams to manage the complexity of modern work. This continuous shift from organizing the work units around individuals toward organizing the work in teams has been determined, in part, by factors such as the rate of change in task requirements and the generally pervasive nature of change in business environments. In addition, the same factors that accelerate an enhancement of team-based organizations' creativity impose teams, once formed, a quickly and continuously adaptation of their performance processes (Rosen et al., 2011). As previously suggested (Zoltan, Vancea, 2015a), we call *work team* a special group, sometimes an entire organizational unit (Zoltan, 2012a), which has to accomplish a complex task that requires common effort and different expertise on behalf of the members, whereas *team work* is a style of working in organizational context, regardless of organizational structural configuration.

To capture this ability of organizations and teams to adapt to the external environment while standardizing their processes, the concept of *ambidexterity* has been proposed in literature. However, what is less apparent is how teams became ambidextrous and to what extent they need to be ambidextrous. "Entire multibusiness organizations, single divisions, departments, work teams, and even individuals all face this need for both exploration and exploitation" (Boumgarden, Nickerson, Zenger, 2012), but are the two sides of ambidexterity equally important at team level? Are they easily separable? And afterward, how can we define team members' ambidexterity in work team process? We try to answer these questions in the following paragraphs.

2. The concept of ambidexterity in literature

2.1. Organizational ambidexterity

Research in areas such as management, organization theory and strategic management has relatively recently adopted the human characteristic of being ambidextrous (i.e., an individual's ability to use both hands with the same skill) as a metaphor to describe competent organizations (Lubatkin *et al*, 2006; Carmeli, Halevi, 2009). In general, *exploration* involves company behavior characterized by increased diversity of activities, research, discovery, experimentation, risk-taking

and innovation, while *exploitation* is characterized by decreased diversity, disciplined problem solving, improvement, implementation, efficiency, production and selection (Carmeli, Halevi, 2009).

Other definitions and approaches to ambidexterity place emphasis on competencies (Kwak, Lee, Lee, 2020), on learning processes (Jansen *et al*, 2016; Simsek, 2009; Revilla, Rodríguez-Prado, 2018) or refers to strategies to be followed by organizations (Schmitt, Probst, Tushman, 2010; O'Reilly, Tushman, 2013) or stresses behaviors (O'Reilly, Tushman, 2004; Rodriguez, Hechanova, 2014) and so on.

We agree that exploration is associated with the search for new competencies and concerns taking risks, creativity, problem solving, adaptation and flexibility while exploitation is referring to the use of existing competencies and is dealing with efficiency, systematization, outcome, conformation with existing rules and methods (Rodriguez, Hechanova, 2014; Kwak, Lee, Lee, 2020), and both exploration and exploitation are abilities that can be exerted by individuals, leaders and teams (Rodriguez, Hechanova, 2014). From this tackling we already notice that the two sides of ambidexterity concurrently imply both learning and actual work processes.

2.2. Ambidexterity at individual and team level

The vast majority of research places the burden of ambidexterity on managers (Lubatkin *et al*, 2006; O'Reilly, Tushman, 2013; Heavey, Simsek, 2014; Li, Cui, 2018; Knight, Cuganesan, 2020), although they admit that it is not clear what is happening at the individual and business units level (Raisch *et al*, 2009) and even that the use of ambidexterity by companies is a "basic unresolved problem" (Levinthal, March, 1993).

As Pertusa-Ortega *et al* (2020) suggested, we must differentiate ambidexterity: at the individual, team, and organizational level. To evaluate individual ambidexterity, Vicentini *et al* (2019) highlighted that cognition, orientation, and background of individuals must be considered. Simply put, it must be assessed individuals' *know-how*, what they want to do and learn, and what competencies and skills they have acquired.

Practically, for example, Fang, Lee and Schilling (2010) argue that exploration and exploitation can be achieved by "parallel semiautonomous subunits with a small fraction of cross-group links", using "practices like personnel rotation or interdivisional task forces". On similar terms, Meijer (2017) addresses the issue of team and individual ambidexterity in the case of new product development teams by determining "the potential and actual ambidexterity" of team members. The author shows that it is not necessary for a member of a new product development team to act ambidextrous and advises managers to make sure that the potential ambidexterity ("personal disposition") of their team members is fitted with task demands (Meijer, 2017).

3. Research methodology

In order to investigate and in an attempt to explain the concept of ambidexterity at organizational team level, we analyzed in depth the two components of organizational ambidexterity, exploration and exploitation, to highlight the difficulty of separating them. To achieve this goal, we drew upon critical appraisal of the literature, deductive reasoning and comparative analysis as suitable methods to correlate the theoretical meanings of the concept of organizational ambidexterity with the practical realities of work team processes.

Thus, we first examined the denotation of exploration and exploitation in organizational context and discussed the discrepancies found in literature when it comes to its applicability in work team context. Then, starting from the premises that work team is a special organizational unit and has particular processes through which accomplishes complex tasks, we brought forward the main processes through which work teams explore and exploit, and we underlined the porpoises and conditions for each component of ambidexterity. Thirdly, we linked and connected our observations into a brief framework meant for a better understanding of team ambidexterity and its distinctive issues and challenges.

Finally, we pointed out some conclusions that emerge from our approach, with a focus on learning and working particularities in organizational teams, implications for organizations management and suggestions for future research on team ambidexterity.

4. Findings

4.1. A refinement on work teams' exploration and exploitation in organizations

Reviewing some of the most cited definitions of ambidexterity (Revilla, Rodríguez-Prado, 2018; Jansen et al., 2016; O'Reilly, Tushman, 2013; Lubatkin *et al*, 2006) one may remain with the impression that exploration and exploitation are completely different in time and space and further away, oversimplifying, that teams and organizations can be of two main kinds: exploitative and explorative. But given that only individuals explore and exploit, whether they are members of a team of workers or they lead multinational companies, thus both at the team and at the organizational level, the two sides of ambidexterity intertwine as long as new activities are carried out alongside old ones, it is necessary both short and long term orientation (Rodriguez, Hechanova, 2014), work processes requires organizational rules and standards, but also individuals and teams must have a certain degree of autonomy in order to unfold both conception and execution activities.

Nonetheless, each type of work (largely divided into conception and execution) has a specific end, a distinctive result that is broadly measured in terms of efficacy (fulfilling the goals without holding on to costs) and/or efficiency (accomplishing the goal at the lowest possible costs). So that, in carrying out any type of activity team members will either exploit what they know from experience with the resources at hand, or they will look for new possibilities, in other words, any work-related activity will fall into either the exploitation or exploration category at any given time.

Concurrently, we must take into account the fact that in the extremely competitive environment in which companies operate today, it is difficult to separate, in certain sectors, the entirely exploratory activities from the strictly exploitative operations. *In extremis*, on the one hand, we would consider geniuses (like Albert Einstein), which generates absolute novelty and revolutionizes the world, and on the other hand, executing robots and nothing in between: this would mean seeing exploration and exploitation as discontinuous, orthogonal (Jansen *et al*, 2016; Boumgarden, Nickerson, Zenger, 2012), i.e. unrelated. But in a social environment we cannot say that there are unique and separate learning and working styles that are mutually exclusive. Furthermore, the separation itself is artificial: the recombination and refinement of existing knowledge is framed for exploitation (Levinthal, March, 1993; Jansen *et al*, 2016), which confirms our previous exaggeration if we follow this line of thinking: exploration is a given of geniuses that changes the world forever. In reality, many innovations that have reached the stage of successful product have been achieved by recombining existing knowledge, ideas, processes, which involves creativity, which, by definition, means exploration, and therefore in no case simple exploitation. In other words, no one creates in a vacuum with no previous information. Finally, all kinds of different people work in organizations, with various backgrounds and motivations (Zoltan, Vancea, 2020), diverse relationships with other members, depending on their place in communication networks (Zoltan, Vancea, 2018). You cannot assume that the members of an organization learn in one way and not in another and conversely and this is simply because there is no unique learning style (Zoltan, Bordeianu, Vancea, 2013).

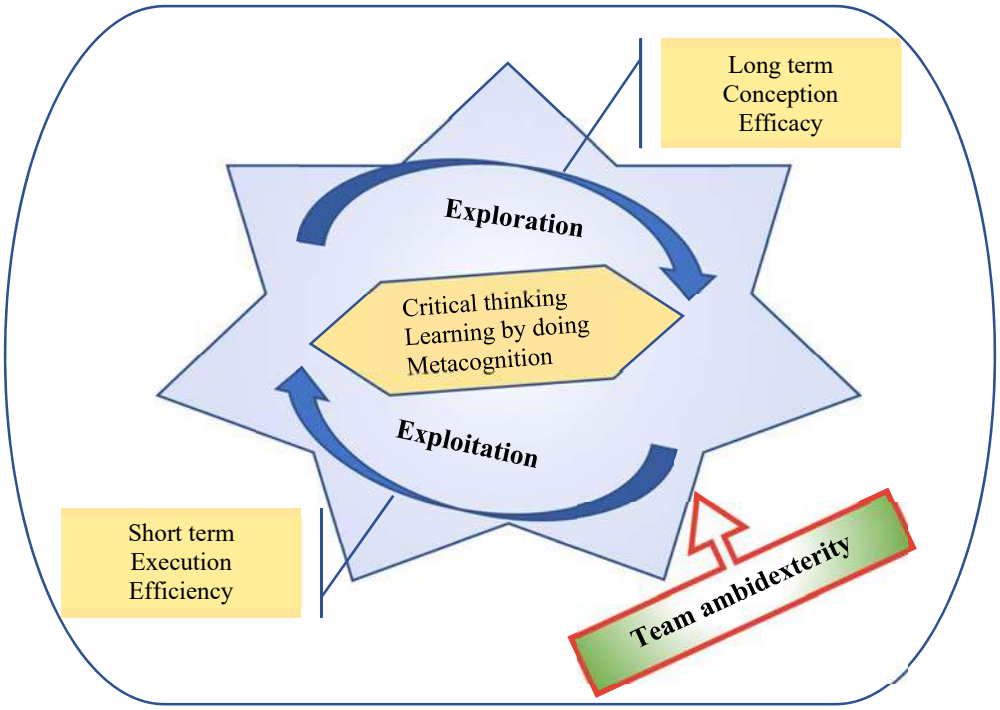
4.2. A framework to perceive team ambidexterity

Given the inconsistencies aforesaid, we consider that some reference points are needed in order to obtain the potential benefits of ambidexterity concept. One of them, probably the most important, concerns the team processes, and first of all, the manner in which information is processed and decisions are made.

There are four categories of processes related to how the team is gaining its knowledge and skills: recapitulation (in which the team seeks to understand its previous performance), reflection (in which the team detects errors and evaluates its performance), integration (in which the team transforms the initial understanding of team performance into a new, common model by incorporating previously identified successes and failures) and action planning (in which the team intentionally develops lessons learned from past performance evaluation and develops a plan for integrating these lessons into the team new processes) (Rosen et al., 2011). All these four categories can be seen in a dualistic manner: recapitulation and reflection would mean exploiting past results, while integration and

planning would be about exploring future possibilities for team performance. But pragmatically speaking, at the team level we cannot always clearly delineate when the exploration ends and the exploitation begins because the task that the organizational team has to perform is always complex (unlike work groups) (Zoltan, Vancea, 2015a) and therefore requires a permanent communication between members, a regular reappraisal of options and alternatives and a certain level of self-management to decide what changes need to be made.

Figure no. 1. A brief model of work team ambidexterity in organizational context



Source: Authors' contribution

As such, knowledge processing at team level, namely team learning or collective learning, is largely a deliberative process in which a team retrospectively evaluates its past performance (*critical thinking*) in order to incrementally change its processes (*learning by doing*) to lay the groundwork from which they will perform in the future (*metacognition*). All these three essential processes must be harmonized in accordance with team objectives since:

- Predominance of *critical thinking* is an exploratory feature, but excessively used, can be detrimental both for team result and processes;
- *Metacognition* is very useful when activities are routinized and activities nearly automatic, but not when a drastic change must be done;
- The middle way appears to be *learning by doing*, but there are not always available the needed resources.

Therefore, every work team must figure out its own "recipe" because there is no tailor-made prescription in terms of team ambidexterity. All three processes mentioned above are a ground rule for achieving difficult tasks that requires both old and new information, knowledge and abilities, such as complex tasks that work teams has to accomplish in organizational context.

In view of all this, in figure no. 1 we suggest the idea of melting the two sides of ambidexterity at the team level, which not necessarily imply that some of team members are in charge with exploration and others with exploitation (it will depend on task type and other criteria). In our view, exploitation and exploration at individual and team level in organizations are competencies developed through successive loops of learning, practice, experimentation and reevaluation in a back and forth process with no fixed boundaries. It is not a chaotic process, but a flexible, natural way of facing the challenges of modern economies through well-developed sole mechanisms of adaptation.

The main idea that emerges from our succinct model (figure no. 1) is that at least at the team level, exploitation and exploration activities are difficult to separate. First of all, from the very definition of the team, it is mandatory that the team to be composed of individuals who have diverse knowledge, skills and competencies to perform a complex, team-specific task (Zoltan, Vancea, 2015b). Second, these skills and competencies are formed through a continuous process: accumulation of new information (exploration) and experimentation (exploitation). It is not natural to separate them: the individual does not forget everything he or she knows at a time and totally resets to start over. The learning process involves both, in different proportions, at different times, and more often than not is different from individual to individual: accumulation (exploration), sedimentation by selection (critical thinking), use in practice (exploitation), sedimentation by use in practice (learning by doing), then new information is added to the existing experience and knowledge (metacognition), and again refining, selection and accumulation, and so on, in unexpected loops. As we mentioned before, it is a case of flexibility and adaptation in pursuing the team's settled goals and not some random steps.

5. Conclusions

We suggested that, at least at team level, most of the time is nearly impossible to say when the exploring stops and exploitation begins. However, we do not exclude that in some situations the team management can decide to divide the task into subtasks, some more explorative and some more exploitative. Depending on team members education, experience and training, some individuals can perform both types of activities, exploring and exploiting, but Meijer (2017) found that those team members who excel in one of them will not excel in other one. In this case, team ambidexterity will be contingent upon team task requirements since members' subtasks must eventually be rolled into one single team outcome. Future research could consider the well-known Steiner's (1972) classification of groups tasks, as well as specific categories of organizational work groups and work teams (Vancea, 2015) in order to determine which collective tasks of team or group require, and to what extent, exploration and/or exploitation. Also, concerning ambidexterity at team level, future research that will particularly address teams-specific constructs such as shared mental models and tranzactive memory (Zoltan, 2012b; Heavey, Simsek, 2014) could be especially fruitful.

Afterwards, rather than assuming opportunity costs and an inherent tension between exploration and exploitation (Fourné, 2014), we can analyze to what extent both are needed depending on what goals organization pursues. We must take into account that the result of the exploration gives the measure of the team efficacy (aimed at the outcome quality), and the exploitation, its efficiency (aimed at the outcome quantity), and the co-appearance of efficacy and efficiency denote the performance of the ambidextrous team. At the same time, both at individual and team level, any productive, energy consuming activity unfolded in the process of accomplishing work tasks will fall more or less into the category of exploration or exploitation, or seldom equally in both (e.g. research activity with the view of writing a scientific paper in a foreign language).

Although studies sometimes place excessive emphasis on learning processes, it is purposeful to keep in mind that in organizational context, especially in companies, ambidexterity cannot be a goal *per se*, but only a meaning, a way, a variant through which can be achieved organizational objectives such as the production and sale of products and services. In other words, the fact that learning processes are divided into all sorts of categories in the literature is of little use to companies.

Ultimately, since it is hard to specify the optimal mix of exploitation and exploration (Levinthal, March, 1993), managers need to focus on determining the purpose for which the team is formed and what results are expected from its members. Moreover, managers need to know exactly how the team result is to be assessed. This projections for the future, including the path to follow and the destination, will make possible to identify, in addition to the necessary resources and support from management, the extent to which the ambidexterity of the team should or shouldn't be a guided process. As a result, managers will know how much autonomy the team needs so as the team to set its own performance standards and working rules and, depending on these, how it will tip the scales in favor of exploration or exploitation.

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Section V

Finance and Accounting

An Econometric Approach on Performance and Financial Equilibrium during the COVID-19 Pandemic

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Abstract

On the account of the current pandemic crisis and recurrent lockdown periods, most of the companies around the world have registered massive decreases in sales, while others were forced to go bankrupt. In the same line, the New York Stock Exchange was seriously impacted by the lockdown measures enacted in countries all over the world. Nevertheless, despite this unprecedented context, large companies have managed to overcome challenges, continued their activities and even made important investments, thus increasing the trust of stock market players in their financial performance. The current study investigates the link between performance and liquidity on a sample of 34 companies listed on the New York Stock Exchange. Results show that liquidity significantly influenced company performance, which ultimately impacted on investors' willingness to stay active on this capital market.

Key words: liquidity; return on assets; return on equity; return on investments
J.E.L. classification: G00, G32

1. Introduction

Any entrepreneur, irrespective of the spread of economic activities, aims to develop the business in the long run and ultimately be performant. Under the financial lens, performance translates into generating profit. As Ludwig von Mises – a well-known representative of the Austrian School of Economics – used to say, "he who serves the public best, makes the highest profits". Nevertheless, entrepreneurial drive, financial performance and long-term goals can sometimes be deterred by unexpected phenomena such as the current COVID-19 pandemic crisis. While some companies can manage to stay in business and continue serving the public by going online and/or by restricting on-site operations, others can hardly retain their employees because of drastic mitigation of sales or even have to file for bankruptcy.

Within this framework of massive economic changes on the global market and rising level of uncertainty, it seems propitious to investigate the degree to which company liquidity influences financial performance. Therefore, in this study we have analyzed the relationship between company performance and liquidity during the period ranging from the first quarter of 2007 until the third quarter of 2020 in order to capture the effects of both the global financial crisis and the COVID-19 pandemic crisis.

The sample pool comprised the first 34 companies listed on the New York Stock Exchange, ranked according to their transaction volumes. Companies operate in various economic sectors such as artificial intelligence, e-commerce, financial services, food and beverages, investment banking, manufacturing of electronics and computer software, movie production, retail, etc.

The article is structured as follows. Section 2 presents studies focused on company financial equilibrium and performance. Section 3 describes the research methodology, while section 4 details the empirical findings. The last section formulates conclusions and avenues for future research.

2. Literature review

The literature reports that company financial performance is influenced by numerous variables including liquidity, which measures the short-term financial equilibrium in business (Amihud, 2002; Asle, Valahzagharad and Ahranjani, 2013; Chen, 2018; Daryanto, Samidi and Siregar, 2018; Dong, Feng and Sadka, 2019; Dzomonda and Fatoki, 2020; Franzoni, Nowak and Phalippou, 2012; Jose, Lancaster and Stevens, 1996; Marozva, 2015; Yang, Guaruglia and Guo, 2017). On the one hand, liquidity indicators show the capacity of a company to meet short-term liabilities (Bătrâncea, Bătrâncea and Moscviciov, 2009a; Bătrâncea, Bătrâncea and Borlea, 2007). On the other hand, financial performance indicators show the capacity of a company to generate profit with respect to its total assets, equity, total expenses, etc. (Coleman and Wu, 2020; Moscviciov *et al*, 2010; Soenen, 1993).

The following paragraphs will briefly present relevant studies that have investigated the connection between liquidity and financial performance and have emphasized the importance of cash and assets easily convertible into cash for any company aiming for long-term performance.

Wang (2002) analyzed the relationship between liquidity management and operating performance for 1555 companies from Japan and 379 companies from Taiwan during the time span January 1985 – December 1996. Empirical results showed that aggressive liquidity management significantly increased operating performance in both markets, irrespective of the company financial system.

Czyzewski and Hicks (1992) reported that companies that were successful on the market and possessed considerable cash assets were also the ones attaining higher levels of return on assets.

Farooq and Bouaich (2012) analyzed the link between liquidity and company performance across countries from the MENA region (i.e., Bahrain, Egypt, Jordan, Kuwait, Morocco, Saudi Arabia, United Arab Emirates) and concluded that the former had a positive influence on the latter. In addition, other interesting results reported by authors were that the concept of liquidity had a higher value in civil law countries and that the connection liquidity-performance was more intense for companies operating in civil law countries as compared to common law countries.

Charmler *et al* (2018) investigated the influence of liquidity on the performance of 21 commercial banks in Ghana over the period 2007–2016 and showed that liquidity had a positive influence on company performance.

Hou *et al* (2019) found a significant relationship between funding liquidity and private equity performance on data from Chinese companies.

3. Research methodology

The current research study was conducted on financial data retrieved from 34 companies listed on the New York Stock Exchange for the period first quarter 2007 – third quarter 2020. The specific time frame was chosen in order to determine the link between liquidity and performance during the 2007 global financial crisis and the current pandemic crisis, two major events of the last decades.

For company performance, the following indicators were chosen:

- Return on Assets Ratio (ROA), computed as the ratio of net income to total assets;
- Return on Equity Ratio (ROE), computed as the ratio of net income to equity;
- Return on Investments Ratio (ROI), computed as the ratio of net income to total expenses.

The proxies for company liquidity were the following indicators:

- Current Ratio (CR), computed by dividing current assets and current liabilities;
- Quick Ratio (QR), computed by dividing quick assets and current liabilities;
- Debt to Equity Ratio (DE), computed by dividing total debts and equity.

Due to the longitudinal nature of the study, panel data analysis was selected as a method of testing the aforementioned link.

4. Findings

As a first step, the evolution of performance indicators was analyzed for the selected sample (Table 1).

Table no. 1. Evolution of performance indicators

	ROA	ROE	ROI	CR	QR	DE
Mean	0.0898	0.1686	0.1952	1.7025	0.9738	1.8603
Median	0.0797	0.1740	0.1679	1.3000	0.7900	1.2400
Maximum	0.3813	14.1759	2.5194	11.9100	9.7000	42.6000
Minimum	–0.9804	–64.9133	–0.4232	0.0000	0.0000	–154.0200
Std. dev.	0.0707	1.6570	0.1845	1.3424	1.1992	5.0560
Skewness	–1.3413	–32.9937	4.5747	3.1943	2.3104	–16.2566
Kurtosis	31.3431	1304.087	44.0232	17.4321	11.1071	508.3084
Jarque-Bera	61971.54***	1.30***	124252.0***	19066.50***	6664.938***	19624802***
Sum	164.6940	309.3647	329.5062	3127.490	1788.900	3417.430
Sum Sq. Dev.	9.1569	5035.452	57.4245	3308.465	2640.187	46934.54
Observations	1835	1835	1688	1837	1837	1837

Source: Author's computations.

Note: *** indicates significance at the 1% level.

Table 1 displays the mean, median and standard deviation values for all the indicators chosen to represent company performance and liquidity. Concerning the standard deviation, debt to equity had the largest volatility, followed by return on equity and return on assets. Based on the skewness values, it can be noticed that three indicators were skewed to the right, while the others were skewed to the left. The kurtosis values for all indicators were above 3, thus indicating leptokurtic distributions. Moreover, the Jarque-Bera test reported that the series was non-normally distributed at the 1% level.

As a second step, correlations between the variables of interest were investigated in order to identify potential multicollinearity problems. Table 2 presents the correlation matrix.

Table no. 2. Correlation matrix between indicators related to company liquidity and performance

Indicators	ROA	ROE	ROI	CR	QR	DE
ROA	1					
ROE	0.0114	1				
ROI	0.6632	–0.0043	1			
CR	0.4138	0.0193	0.1208	1		
QR	0.3581	0.0206	0.0491	0.8099	1	
DE	–0.2103	0.2447	–0.1148	–0.1406	–0.1400	1

Source: Author's computations.

According to the literature (Chen and Rothschild, 2010), correlation values exceeding 0.9 pose severe multicollinearity problems. From Table 2 it can be noticed that the variables of interest did not reach this level. Hence, multicollinearity did not represent a problem for the financial data considered in this study.

As a third step, the link between liquidity and performance was modeled via a panel data analysis using the EViews software version 9.0. Within this context, the following research hypotheses were investigated:

H1: There is a linear relationship between current ratio, quick ratio, debt to equity ratio and return on assets.
H2: There is a linear relationship between current ratio, quick ratio, debt to equity ratio and return on equity.
H3: There is a linear relationship between current ratio, quick ratio, debt to equity ratio and return on investments.

The proposed econometric models followed this general form:

$$\boldsymbol{B_{it}} = \boldsymbol{a_0} + \boldsymbol{a_1 A_{1\,it}} + \boldsymbol{a_2 A_{2it}} + \boldsymbol{a_3 A_{3it}} + \boldsymbol{a_4 A_{4it}} + \boldsymbol{\delta_i} + \boldsymbol{\theta_t} + \boldsymbol{\varepsilon_{it}}$$

where,

- a_0 denotes the intercept;
- a_i denotes the coefficient of the independent variable;
- A denotes the independent variable;
- i denotes the activity of the company, taking values from 1 to 34;
- t denotes the time frame;
- δ_i denotes the fixed effects that comprise country-specific factors;
- θ_t denotes the fixed effects that comprise common shocks (i.e., 2007 global financial crisis, COVID-19 pandemic crisis);
- ε_{it} denotes the error term.

Considering that common shocks impacted the dependent variables, models were estimated with and without fixed effects. Table 3 includes the estimated models regarding the relationship between liquidity and performance.

Table no. 3. Estimated econometric models

	Model 1 $ROA = a_0 + a_1 CR + a_2 QR + a_3 DE$		**Model 2** $ROE = a_0 + a_1 CR + a_2 QR + a_3 DE$		**Model 3** $ROI = a_0 + a_1 CR + a_2 QR + a_3 DE$	
Constant	0.0584*** (22.7242)	0.0675*** (21.6401)	–0.0773 (–1.1995)	–0.0111 (–0.1056)	0.1639*** (19.1823)	0.1597*** (14.0579)
CR	0.0158*** (10.6489)	0.0134*** (7.5494)	0.0272 (0.7322)	–0.0080 (–0.1333)	0.0365*** (5.548738)	0.0375*** (4.0695)
QR	0.0078*** (4.7049)	–0.0003 (–0.1778)	0.0522 (1.2619)	0.0214 (0.3318)	–0.022*** (–3.4899)	– 0.0239*** (–2.6018)
DE	–0.0016*** (–5.4202)	–0.0002 (–0.6248)	0.0799*** (10.4981)	0.0925*** (11.1106)	–0.0036*** (–4.1699)	–0.0013* (–1.7710)
Cross-section effects	No	Yes	No	Yes	No	Yes
Time-fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Prob.>*F*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
R^2	0.1991	0.5680	0.0840	0.1100	0.0540	0.4053
Adjusted *R*-squared	0.1734	0.5457	0.0546	0.0641	0.0210	0.3722
F statistic	7.7502	25.4793	2.8581	2.3950	1.6335	12.2376
Observations	1835	1835	1835	1835	1688	1688

Source: Author's computations.

Note: Robust *t*-statistics are shown in parentheses; *, **, *** denote statistical significance at the 10%, 5% and 1% levels. The variance inflation test was used to investigate the hypothesis of multicollinearity for all models. Since the values of the variance inflation test was below 4, it can be concluded that there is a low risk of multicollinearity. The Harvey test rejected the null hypotheses of homoskedasticity.

In the first model without cross-section fixed effects, results indicated that 19.91% of the variance in return on assets had been triggered by liquidity indicators ($F = 7.75$, $p < .001$). If current ratio increased by one unit, return on assets would also increase by 0.0158 units. If quick ratio increased by one unit, performance would follow the same trend with 0.0078 units. Moreover, had debt on equity increased by a single unit, performance would decrease by 0.0016 units. In the presence of cross-section fixed effects, only the influence of current ratio remained significant at the 1% level.

The second econometric model (the version without cross-section fixed effects) showed that 8.39% of the variance in the return on equity indicator was caused by the independent variables. The influences of current ratio and quick ratio did not reach significance. According to results, debt to equity had a significant influence on performance, meaning that if this indicator increased by one unit, return on equity would increase by 0.0799 units. Regarding the cross-section fixed-effect model, again only debt to equity reached significance: when this indicator increased by one unit, performance would increase by 0.0925 units, slightly more than in the case of the first version of the econometric model.

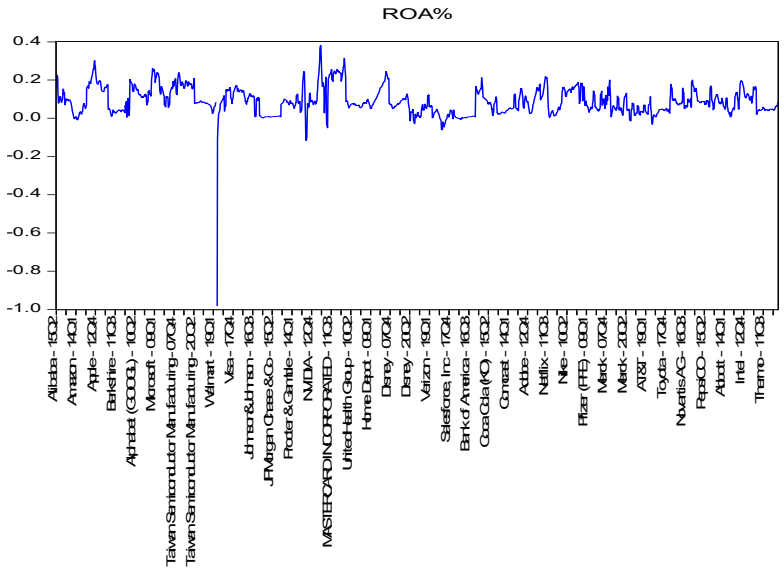
According to the third model without cross-section fixed effects, results indicated that 5.40% of the variance in return on investments was generated by liquidity indicators ($F = 1.6335$, $p < .001$). All liquidity indicators had a significant impact. Namely, when current ratio changed by one unit, the performance indicator changed by 0.0365 units. An increase of one unit in the quick ratio indicator would be followed by a decrease of 0.022 units in performance. Moreover, an increase of one unit in debt to equity would trigger a decrease of 0.0036 units in performance. When considering the model with cross-section fixed effects, one could observe that its goodness-of-fit was better than in the case of the version without these effects. Namely, the variance explained by the three liquidity indicators was 40.53% ($F = 12.2376$, $p < .001$). The influence of current ratio was significant in that a one-unit increase in this indicator would be followed by a 0.0375 increase in performance. In the same vine, if quick ratio increased by one unit, return on investments decreased by 0.0239 units. Last but not least, a one-unit increase in debt to equity would be followed by a 0.0013 decrease.

5. Conclusions

The research study examined the evolution of performance on a sample comprising the first 34 companies listed on the New York Stock Exchange according to their transaction volumes. The indicators chosen to capture company performance have targeted the internal-based performance, shareholder equity performance and investment efficiency.

Internal-based performance has been determined via return on assets (ROA), computed as a ratio of net income to total assets of the company. The importance of this indicator stems from the fact that it captures the efficiency with which profit is generated by means of company internal resources. Empirical results showed that current ratio and quick ratio had a positive influence on ROA, while debt to equity ratio had a negative impact.

Figure no. 1. Evolution of ROA for the 34 listed companies

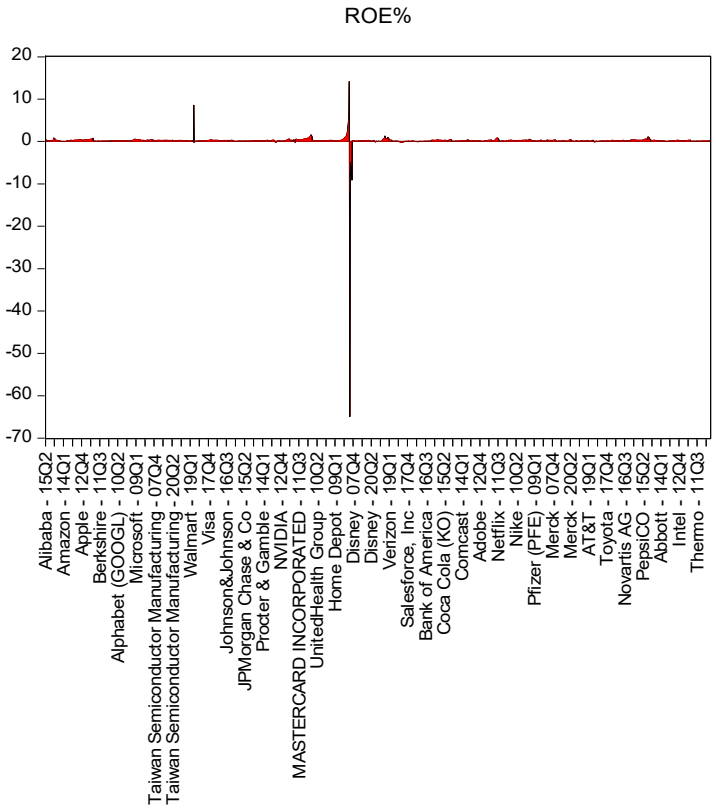


Source: Author's computations.

As can be seen in Figure 1, both the global financial crisis and the COVID-19 crisis had no significant impact on ROA since its evolution was constant during the first quarter of 2007 until the third quarter of 2020. The only outlier was registered by Visa in the first quarter of 2019, which had a massive decrease of 80% in ROA as compared to 2007.

Shareholder equity performance has been measured with return on equity (ROE), determined as a ratio of net income to equity. This indicator shows the amount of profit generated by shareholders' investments. According to the empirical results, only debt to equity had a significant influence on the evolution of ROE.

Figure no. 2. Evolution of ROE for the 34 listed companies

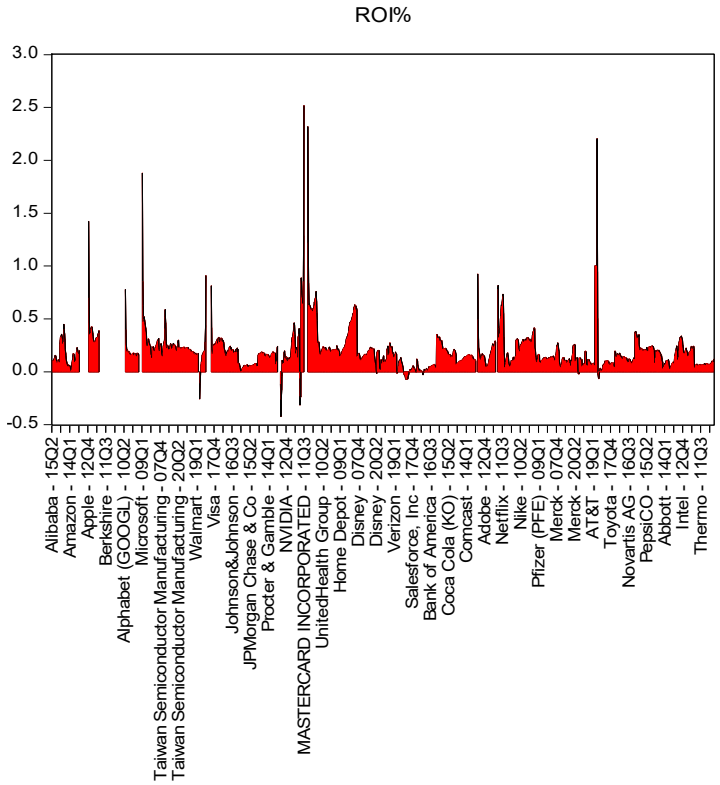


Source: Author's computations.

Figure 2 shows that the evolution of ROE was constant for all companies, except for Home Depot in the first quarter of 2009 and Disney in the fourth quarter of 2007.

Return on investment (ROI) is another indicator capturing company performance and it has been determined as a ratio of net income to total expenses. According to our results, current ratio had a positive impact on investment efficiency, while quick ratio and debt to equity ratio had a negative impact.

Figure no. 3. Evolution of ROI for the 34 listed companies



Source: Author's computations.

Across the selected time frame, the evolution of ROI was positive, namely companies managed to surpass both crises by increasing their investments.

Overall, the empirical study showed that liquidity indicators significantly influenced the financial performance of companies listed on the New York Stock Exchange for the period first quarter 2007 – third quarter 2020.

Future studies could consider expanding the sample pool by including more companies listed on the New York Stock Exchange or other major stock markets around the world. Along the same lines, comparisons between different stock markets could be conducted. In addition, one could take into account other factors that drive company performance.

One a final note, it can be stated that studying what variables influence financial performance is fundamental for the long-term success of any business. Given the increasing degree of uncertainty on global markets, business people must learn how to efficiently navigate crises (Bătrâncea, Bătrâncea and Moscviciov, 2009b; Bătrâncea *et al*, 2013), stock market crashes, recession periods, decreasing sales and still keep business operations going (Bătrâncea and Bătrâncea, 2006; Bătrâncea *et al*, 2007; Bătrâncea *et al*, 2007). As Warren Buffet, the savviest investor on Wall Street, says "if a business does well, the stock eventually follows".

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The Influence of Public Debt on Performance: Lesson from Romanian Counties

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Abstract

A financial crisis has significant consequences on governmental resources. In the recent decade, especially after the 2007 global financial crisis, numerous studies on public debt have emerged in the literature. Moreover, an important part of a country's public debt is the level of public debt registered by regional authorities such as counties. For this reason, the article empirically investigates the impact of local public debt on the performance of six Romanian counties. By using annual data spanning the period 2007–2016, the impact is analyzed through a panel data approach. Overall results suggested that local public debt had a negative impact on the performance of local government authorities. The empirical analysis offers considerable support in relation to the sovereign debt crisis started in 2010.

Key words: public debt; repayment capacity; performance
J.E.L. classification: H72

1. Introduction

The topic of public debt is of great significance for nowadays societies around the world and has been investigated through various lenses, from economic and financial to geographical, psychological or political ones (e.g., Baglan and Yoldas, 2016; Cafiso, 2016; Cafiso and Cellini, 2014; Churchman, 1999; Citron, 1995; De Mello, 2010; Dunayev, 2013; Ferreira de Mendonça and Pereira Duarte Nunes, 2011; Gürbüz, Jobert and Tuncer, 2007; Jawadi and Sousa, 2015; Jordà, Schularick and Taylor, 2014; Kuhle, 2014; Levine, Mandilaras and Wang, 2008; Oguro and Sato, 2014; Schaltegger and Torgler, 2005; Tagkalakis, 2014; Trionfetti, 2015; Weizsacker, 2013; Woo and Kumar, 2015).

Public debt is classified into two categories, namely government debt (i.e., state authorities' obligations) and local public debt. The former includes all internal and external financial obligations of the state at a time, from direct loans or loans guaranteed by the government (through the Ministry of Finance) to the ones guaranteed by the domestic and foreign financial markets. The latter comprises all internal and external financial obligations of local authorities at a time, which are part of the country's public debt and are generated from loans contracted or guaranteed by financial markets but are not contracted by the government itself.

In terms of maturity, public debt is classified as follows: a) short-term public debt (floating); b) medium and long-term public debt (consolidated). Depending on creditors' quality, debt can be: a) gross public debt, encompassing all loans, regardless of their placement; b) net public debt, which is the decreasing value of loans placed in state institutions. The total public debt is recorded into the register of public debt and it is shown in the general account of public debt.

Public debt as a share of GDP has been rising in almost all EU countries since 2007, when the global financial crisis began (Bătrâncea, Bătrâncea and Moscviciov, 2009; Bătrâncea *et al*, 2013). The crisis has caused an important growth in public debt in countries all around the world. By the end of 2013, the level of public debt had reached almost 107% of GDP across advanced economies, which was the highest level ever reached for the past 50 years. As economic practice reveals, developed countries have the tendency to amend citizens' living standards by considerably

diminishing social security funds and by augmenting public debt through monetary instruments (e.g., lower inflation rate; stronger currency) as opposed to increasing production and adding new jobs into the economy.

At that time, the magnitude of the crisis prompted EU governments to increase public spending in a concerted manner. Governments were forced to recapitalize banks, take over a large part of the debts belonging to failing financial institutions and introduce stimulus programs to revive demand. The coordinated effort resulting in higher budget deficits and public borrowing had two consequences: on the one hand, it prevented the recession following the financial crisis to becoming another great depression; on the other hand, it triggered the sovereign debt crisis, which started from Greece. Romania was among the countries affected by the sovereign debt crisis, along with Italy, Spain and Portugal. The public debt level doubled in four years, a reality that influenced the future regional development of the country. Although the level of this economic indicator fell comfortably within the requirements of the Maastricht Treaty (i.e., 60% of GDP), its growth rate still remained worrying.

Nevertheless, the origin of the sovereign debt crisis goes deeper than fiscal imbalances of EU member states. As Vis, Woldendorp and Keman (2007) argued, miraculous economic performance usually is triggered by excellence regarding economic growth, employment and public debt.

In the case of Romania, the level of public debt comprises internal and external financial obligations of the state resulting from loans contracted or guaranteed by the government (through the Ministry of Finance), or local authorities, which are obtained from different lenders – resident or non-resident of Romania. Obligations represent commitments arising from borrowing, i.e., repayment of principal, payment of interest, fees and special benefits granted to creditors.

The present article aims to answer the following questions: Assuming that a Romanian county wished to lower its public debt ratio, what could local authorities learn from other counties that managed to overcome the economic downturn of the global financial crisis? And, if it were possible to reduce public debt by reducing county debt, how frequent have such approaches been used? Moreover, how can local authorities increase performance of Romanian counties?

The article consists of the following sections. The second section describes the methodology and variables of interest. The third section details on the method and empirical results. The last section draws main conclusions, mentions study limitations and describes future avenues of research.

2. Research methodology

For the purpose of this research, performance ratios are the outcome variables and public debt ratios are the regressors. EViews version 9.0 was the software used to analyze data. Data covered the period 2007–2016 and were retrieved from the balance sheet and patrimonial result account of six Romanian counties from the north-western part of Romania, namely: Bihor, Bistriţa-Năsăud, Cluj, Maramureş, Sălaj, Satu Mare.

The research provides important insights by assessing and understanding how public debt influences the performance of the Romanian counties before, during and after the financial crisis. Moreover, in order to assess the degree to which an economy is influenced by high levels of debt caused by external economic and financial shocks, we used specific indicators.

Performance levels of local authorities depend heavily on the financial structure favored by these authorities, namely on how work is financed by both equity and loans. According to classical theory, there is an optimal ratio between the two funding sources that generate a decrease in the capital cost of a particular local administration.

The following variables of interest were considered:

a) Short-term Public Debt to Operating Revenues ratio (PSDP);
b) Short-term Public Debt to Operating Expenses ratio (PSDC);
c) Long-term Public Debt to Operating Expenses ratio (PLDC);
d) Public Debt to GDP ratio (RSDLP);
e) Return on Assets ratio (ROA), calculated as a ratio between profit and total assets;
f) Return on Equity ratio (ROE), calculated as a ratio between profit and equity;
g) Profit Margin (MP), calculated as a ratio between profit and operating revenues;
h) Profit to Expenses ratio (RRG), calculated as a ratio between profit and total expenses.

3. Findings

Empirical analyses were conducted with Panel EGLS (cross-section weights), specific for investigating time series data.

Table no. 1. Descriptive statistics for predictor and outcome variables

	ROA	ROE	MP	RRG	PSDP	PSDC	PLDC	RSDLP
Mean	0.6600	0.6921	1.0328	1.0899	0.9127	0.9973	–0.2001	–0.4678
Median	0.6045	0.6564	1.0756	1.1453	0.9668	0.9960	0.2723	–0.4028
Maximum	1.4461	1.4723	1.6440	1.8316	1.7876	1.9893	1.6569	1.6325
Minimum	–0.5881	–0.5528	–0.4685	–0.4685	0.0380	0.0580	–3.3504	–3.5229
Std. Dev.	0.3966	0.3703	0.3757	0.4072	0.3862	0.4465	1.4410	1.5773
Skewness	–0.2728	–0.6425	–1.2795	–1.0847	–0.2232	0.0348	–0.8298	–0.3097
Kurtosis	3.8336	4.2311	5.8892	5.2964	2.3952	2.3673	2.5565	1.9038
Jarque-Bera	2.4815*	7.9173***	37.2407***	24.9485***	1.4129*	1.0129*	7.3772**	3.9631*
Sum	39.5998	41.5254	61.9699	65.3992	54.7595	59.8383	–12.0036	–28.0657
Sum sq. dev.	9.2813	8.0887	8.3284	9.7847	8.8021	11.7603	122.5142	146.7835
Observations	60	60	60	60	60	60	60	60

Source: Author's computations.

Note: ***, ** and * show significance at the 1%, 5% and 10% levels.

Table 1 displays the mean, median and standard deviation values for all the predictors and outcome variables. Regarding the fluctuation of the time series, one can notice that RSDLP registered the largest volatility, followed by PLDC, while PSDC had the lowest volatility. One variable was skewed to the right, while seven variables were skewed to the left.

Since the kurtosis values of ROA, ROE, MP and RRG were above the benchmark of 3, these variables had a leptokurtic distribution. The other variables had platykurtic distributions. According to the Jarque-Bera test, data were non-normally distributed.

Table 2 shows the correlations between the variables of interest.

Table no. 2. Correlation matrix

	ROA	ROE	MP	RRG	PSDP	PSDC	PLDC	RSDLP
ROA	1							
ROE	0.925	1						
MP	0.634	0.609	1					
RRG	0.606	0.613	0.985	1				
PSDP	–0.017	–0.062	0.445	0.453	1			
PSDC	–0.118	–0.099	0.442	0.461	0.924	1		
PLDC	–0.368	–0.354	–0.111	–0.140	0.066	0.082	1	
RSDLP	–0.455	–0.398	–0.277	–0.312	–0.034	0.019	0.866	1

Source: Author's computations.

As can be seen from Table 2, the variables of interest are moderately correlated, the highest correlation was set between RRG and PSDC ($r = 0.46$). Hence, it can be concluded that data showed no multicollinearity problems.

Within this context, the following research hypothesis was advanced:

H: There is a linear relationship between public debt ratios (PSDP, PSDC, PLDC, RSDLP) and performance ratios (ROA, ROE, MP, RRG).

The general form of the econometric model was the following:

$$\boldsymbol{Y_{it} = a_0 + a_1 X_{1\,it} + a_2 X_{2it} + a_3 X_{3it} + a_4 X_{4it} + \delta_i + \theta_t + \varepsilon_{it}}$$

with:

- $\mathbf{a}_0$ representing the intercept;
- a_i representing the parameter of the independent variable;

- X representing the independent variable;
- i referring to the activity of the county;
- t referring to the time frame analyzed (2007–2016);
- δ_i representing the fixed effects that intended to control for time-invariant county-specific factors;
- θ_t representing the fixed effects that control for common shocks (such as the global financial crisis);
- ε_{it} representing the error term.

Table 3 displays the estimations of the econometric models testing the relationship between public debt ratios and performance ratios for the six Romanian counties.

Table no. 3. Econometric models testing the relationship between public debt and performance

	Model 1: $ROA = a_0 + a_1PSDP + a_2PSDC + a_3PLDC + a_4RSDLP$	**Model 2:** $ROE = a_0 + a_1PSDP + a_2PSDC + a_3PLDC + a_4RSDLP$	**Model 3:** $MP = a_0 + a_1PSDP + a_2PSDC + a_3PLDC + a_4RSDLP$	**Model 4:** $RRG = a_0 + a_1PSDP + a_2PSDC + a_3PLDC + a_4RSDLP$
Constant	0.7038*** (14.0232)	0.7911*** (14.1048)	0.6502*** (6.2594)	0.6522*** (5.5630)
$PSDP$	0.5620** (2.4894)	0.1997 (1.0138)	0.1741 (0.7764)	0.0028 (0.0101)
$PSDC$	–0.5716*** (–2.7433)	–0.2803 (–1.4705)	0.1832 (0.7594)	0.3920 (1.3576)
$PLDC$	0.0248 (0.6534)	0.0021 (0.0508)	0.1139*** (2.7066)	0.1257** (2.4725)
$RSDLP$	–0.1065** (–2.6315)	–0.0828** (–1.9713)	–0.1662*** (–4.1419)	–0.1895*** (–3.9506)
Prob.>*F*	0.0016	0.0154	0.0000	0.0000
R^2	0.2684	0.1969	0.4531	0.4817
Adjusted R-squared	0.2152	0.1385	0.4134	0.4440
F-statistic	5.0448	3.3720	11.3928	12.7807
Observations	60	60	60	60

Source: Author's computations.

Note: Robust *t*-statistics are displayed in parentheses; *, **, *** denote statistical significance at the 10%, 5% and 1% levels. For all models, the variance inflation test was used to investigate the hypothesis of multicollinearity. No major risk of multicollinearity was detected. Homoskedasticity was investigated with the Glejser and ARCH tests, which rejected the null hypothesis of homoskedasticity.

Empirical results will be detailed in the following paragraphs with the help of the four estimated econometric models.

According to *Model 1*, three out of the four public debt ratios had a significant impact on the performance level of Romanian countries ($F = 5.045$, $p < .05$) and accounted for 21.52% of the variance in performance. That is, if PSDP increased by one unit, county performance measured via return on assets would increase by 0.562 units. The impact of both PSDC and RSDLP was negative: when these predictors registered a rise of one unit, the level of performance at county level would decrease by 0.572 and 0.106 units, respectively.

Model 2 showed that only RSDLP had a significant influence on return on equity ($F = 3.37$, $p < .05$). Namely, when RSDLP had a growth of one unit, the level of performance would decrease by 0.083 units. Judging by the size of the adjusted *R*-squared, it can be stated that 13.85% of the change in return on equity was due to the ratio of public debt to GDP.

Starting from *Model 3*, one can notice that PLDC and RSDLP established a significant relationship with performance measured by profit margin, while the other two independent variables did not reach significance ($F = 11.39$, $p < .001$). Therefore, if PLDC increased by one unit, profit margin would augment by 0.114. At the same time, when RSDLP grew by one unit, profit margin

would decrease by 0.166 units. The value of the adjusted *R*-squared indicated that 41.34% of the variance in performance was triggered by the significant predictors, namely long-term public debt to operating expenses ratio and public debt to GDP ratio.

As in the case of the previous estimations, Model 4 reported that PLDC and RSDLP were again main determinants of performance at county level ($F = 12.78$, $p < .001$). Based on the estimated coefficients, it could be stated that a one-unit rise in PLDC would be followed by a 0.126-unit increase in RRG. Moreover, should RSDLP increase by one unit, performance measured through RRG would decrease by 0.190 units. Empirical results revealed that the combined influence of the ratio of long-term public debt to operating expenses and the ratio of public debt to GDP was ultimately 44.4%. Hence, this particular econometric model has registered the highest variance in the level of performance on the account of the two significant predictors.

4. Conclusions

The management of public debt requires proper strategies in order to mobilize the necessary amounts of funding, conduct risk analyses and set cost goals (Bătrâncea and Bătrâncea, 2006; Bătrâncea, Bătrâncea and Borlea, 2007; Bătrâncea *et al*, 2007, 2010; Bătrâncea, 2009). Hence, managers of local public administrations pay their financial obligations at a cost as low as possible on the medium and long term, while maintaining risks at a tolerable level. In this line of thought, local administrations should avoid dangerous loan structures and strategies that entail default risks, which in turn would decrease public authorities' credibility and capacity to mobilize internal and external resources. Moreover, a change in the benchmark ceiling of local public debt would minimize borrowing capacity and also the size of the local public debt. Concerning specific risks related to managing the level of local public debt (i.e., market risk, refinancing risk, operational risk), these must be subject to careful monitoring and evaluation.

The present study has revealed the importance of using financial ratios with the purpose of analyzing the impact of public debt on the performance of local government authorities. For that matter, a special focus on the activity of local governments and public debt represents a subject of great interest in the context of the sovereign debt crisis. Results obtained by local government authorities depend mainly on the manner in which activities are financed though equity and loans.

Empirical results showed that the performance level of local government authorities in Romanian counties was negatively influenced by the public debt to GDP ratio. At the same time, the short-term public debt to operating revenues ratio had a positive influence on return on assets, meaning that in the period 2007–2016 the increase in operating revenues matched the increase in short-term public debt, thus it positively impacted on ROA. Moreover, the significantly negative influence of the short-term public debt to operating expenses ratio was due to an increase in operating expenses, which triggered a diminished level of return on assets. Overall, the negative impact of the public debt to GDP indicator can be explained by means of a faster increase in public debt as compared to GDP, which implies the payment of higher interest rates for loans. As expected, local government authorities registered a mitigation in their profit level and a decrease in performance level measured by return on assets, return on equity, profit margin and profit to total expenses ratios.

In terms of study limitations, one could mention the sample size and the time frame investigated, which spread across a decade. In this line of thought, future research could consider expanding the analyses to all 41 countries in Romania and running comparative analyses in order to identify the most performant regions in the country. Regarding the time span, upcoming research could analyze a two-decade period and cover also the COVID-19 pandemic crisis.

The following avenues for future research would be of interest for researchers, practitioners and the general public: a comparative investigation between different regions within the European Union, to single out the most performant regional authorities; investigations on various risks associated with local public debt and their influence on EU citizens, with a special focus on unemployment, income and expenses levels, living standards, quality of life, etc.

All in all, the current empirical study provides interesting insights into how local government authorities manage to maintain a balance between obtaining revenues to provide public goods through loans and to ensure an adequate level of financial performance for their local activities.

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The Anti-corruption Performance and Non-financial Disclosure: A Cross-country Analysis

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Abstract

This article aims to stress out if there is any relation between corruption, anti-corruption practices and non-financial disclosure in different countries. The effects of cultural dimensions on corruption are strongly important for the competitiveness of an economy, the business environment, the financial growth, and many other aftereffects. Disclosure on anti-corruption can help on corruption prevention while transparency still is the most valuable tool in fighting against it. We used global scores, by the country for various indicators of corruption, starting from the United Nations "Peace Justice and Strong Institutions" goal. We used the Eikon database on Environment Social and Governance and specific scores measuring corruption facets to complete our analysis.

Key words: corporate governance, corporate culture, anti-corruption policies, non-financial disclosure
J.E.L. classification: D73, G34, M14

1. Introduction

Corruption is multi-layered in descriptive terms, from the misuse of public power to grand corruption, bureaucratic and can affect the national security within a state, can lead to environmental deteriorations and threats on the democratic leading system. Corruption causes can be linked with the state of development within a country (Caron et al., 2012). Emergent market regions are characterized by weak economic policies, impoverished society, poor education levels and low accountability of public institutions (World Bank, 1997).

Every country is characterized by national culture and we highlight the influence of cultural differences influencing people or companies' behaviours. Corruption is widespread in all societies, in a weaker or more accentuate form. The effects of cultural dimensions on corruption are strongly important for the competitiveness of a state, the business environment, the economic growth, and many other aftereffects. The innate tendency for opportunistic behaviour generates from a specific cultural background and we believe that in a general opinion, anti-corruption conduct serves values like honesty and integrity and respecting commitments.

2. Literature review

Analysing corruption is challenging, due to its complexity and wide-spreading. It can be of financial or legal nature, some of the corruption acts are blameworthy and others are not. We can explain it as a deviation from morality, duty or honour. An act can constitute a crime and be subject to sanctions if it meets the elements under criminal law (National Anticorruption Directorate, 2020).

In their studies on organizational conduct, renowned scholars like Hofstede and Scott proved that certain cultural dimensions could modify the perception over ethical circumstances and influence the corruption approach (Hofstede 2001, Hofstede at al. 2010, Scott et al. 1993). Carr & Outhwaite

question if companies made a significant impact on their practices and policies with their self-imposed measures, and the CSR agenda (Carr & Outhwaite, 2011).

We agree with Seleim and Bontis (2010) that anti-corruption fight is difficult because corruption is a multiangled social phenomenon, invading the society on upright and horizontally. Also, Fukuyama (2014) argues that collectivist societies ignore the need of treating citizens impersonally and universal rules do not function, generating nepotism, clientelism and corruption. Furthermore, Husted (1999) notes the association between low standards and collectivism, which make us conclude that higher individualism level and higher governance standards will lead to a lower level of corruption.

Global Report Initiative requirements do include the anti-corruption disclosure but there are not many companies that choose to disclose information about it (Hess, 2012). That is why including anticorruption in the Corporate Social Responsibility practice will generate value, firstly creating social value for the society and economic value for the corporation. Disclosure of information has foremost importance in the communication between companies and their stakeholders and can improve relations between communities, environment, stakeholders and prevent conflicts between them (Alonso Carrillo et al. 2019).

Companies need to disclose significant information about the policies, the management methods and their effectiveness translated into the accomplished results. Jackson et al. argue that increased transparency imposed by the non-financial disclosure (NFD) regulation may lead to less irresponsibility, meaning fewer engagements in corruption behaviours of companies. Disclosure requirements may increase awareness and more attention paid to socially related concerns inside the company (Jackson et al., 2020).

One can refer to NFD from two points of view, one is the hard disclosure, meaning the government regulation and the other is soft disclosure, as the business self-regulation. NFD legislation points out the information for disclosure but does not dictate a standard layout, it does not impose reporting, neither external audit verifications. The reporting requirements might act as red flags generator to detect and resolve the social problems at the firm level and counteract questionable activities and behaviours.

3. Research methodology

We started with an explanatory review with the use of secondary data for the literature review and quantitative statistical data for the case study. We proceeded to formulate two hypotheses, aiming to find a correlation between non-financial disclosure and the variation of results in the fight against corruption.

Anti-corruption practices are more efficient in countries where NFD is required.

NFD regulation can determine an increase of the anti-corruption performance.

For this research, we used Statistical analysis to compare country scores on the environment, social and governance [ESG] drawn from the Eikon Reuters ESG metrics dataset. Eikon is a financial mediator delivering investment information on Environment, Social and Governance problematics. Data are collected from firms reports and websites, media, and NGOs.

The data that we selected for the study is collected from 209 sovereign states. We chose the aggregated ESG country score on "sustainable development country goals" overall, and "Peace Justice and Strong Institutions" segment, one of the 17 goals chosen by the United Nations for sustainable development and measured by country. The six indicators coverage score, related to corruption that we selected are Comprehensive Risk, Criminal and Human Trafficking; Comprehensive Risk, Criminal, Illicit Financial Flow; Comprehensive Risk, Criminal, Arms Export Controls; Corruption Perceptions Index; Anti-Corruption Risk, Criminal, Anti Money Laundry Controls and Comprehensive Risk, Political, Government Effectiveness scores.

Through our analysis we emphasized only the countries with the lowest scores for each indicator, meaning they have the highest risk and the ones with the lowest risk, registering the highest scores values.

4. Findings

Corruption is composed of bribery and fraud. Bribery is a fraudulent action that implies a payer and a beneficiary of an amount of money or goods/services expecting a mutual obligation between the two parties.

Monitoring the corruption phenomenon and fraud is fundamental for the EU financial security and interests. The institution operating fraud investigations, corruption or other illicit activities regarding EU funds and assuring the European citizens' taxes go to where are needed for their Europe development is The European Anti-Fraud Office (OLAF).

At the European Union level, the Amendment on accounting enforcing the Non-Financial Reporting Directive [NFRD] 2014/95/EU concerns the disclosure of non-financial and diversity information. All entities of public interest exceeding 500 employees at the end of the financial year have to encompass in their annual report a non-financial statement regarding environmental, social aspects and personnel issues. The entities will describe their business model, the chosen and applied policies, main risks, and will disclose non-financial performance indicators according to their industry, offering an image of their performance, position and development (EU Directive, 2014).

In the United States, the law that addresses corruption is the Foreign Corrupt Practices Act (FCPA), that prohibits paying bribes to foreign officials to facilitate business deals was installed as early as 1977 with amendments enacted in 1998 and is enforced by The Securities and Exchange Commission (SEC) and the Department of Justice (DOJ) (https://www.investopedia.com/).

The corruption phenomenon and bribery can be reduced by combined efforts and actions on the international and national level. Anticorruption reforms and strategies were adopted and national institutions of anti-corruption were established (e.g. National Anticorruption Directorate in Romania [NAD], Serious Fraud Office [SFO], UK, Federal Bureau of Investigations [FBI] and Public Integrity Section in the US, French Anti-Corruption Agency [AFA] etc.) and transnational bodies like United Nations ["U.N. Convention Against Corruption"], World Bank and International Monetary Fund [IMF], the Organization for Economic Cooperation and Development [OECD]; Anti-Bribery Convention, and Civil Society (e.g. Civil Society Against Corruption [CSAC] platform launched by the Romanian Academic Society [SAR], Transparency International. The reforms' main objectives are improving corporate governance, endorsing public accountability, transparency, responsibility, diminishing corruption and encouraging economic growth and development (Boategn et al. 2020). Analysing the countries with the highest scores on CPI we can notice that eight out of nine countries perceived as less corrupt in the world are part of the OECD.

Corruption refers to revenues from theft, bribery, grafting and embezzlement of national funds by government officials (OECD, 2018). Bribery exposes the companies to legal and financial risks, and they need to bear the outcomes of their acts in case of detection. The convicted managers of companies will not only face fines but also jail incarceration and consistent financial risks. Governments may cancel their contracts obtained or affected by paying bribes or blacklist the firms to forthcoming government projects (Wu, 2005). There is also the other side of the bribery practices, performed by managers that cannot afford the consequences of not paying the bribe, in high corrupted societies. The *collective problem* resides in the attitude of people justifying their behaviour relying on their approach of reasoning how other people will behave in the same circumstances. If corruption is seen as an unwritten rule, people will think it is the only way of making things happen. Even the people are aware of the negative aftermath of corruption, they still adopt corrupt conduct supposing it makes no sense to be the sole person to behave honestly in a rotten system.

Table no. 1 Corruption scores under the "Peace Justice and Strong Institutions" segment of SDG country scores

SDG indicator	Definition	Significant scores	Lowest values, highest risk	Highest values, lowest risk
Comprehensive Risk, Criminal, Human Trafficking, Score	Assesses a country's human trafficking legislation and the effectiveness of a country's human trafficking laws and enforcement capabilities.	min 0.38 max 9.39 average 5.043 median 5.84 164 countries analysed	weakest scores of 0.32 counted for 20 countries (Belarus, Bhutan, China, Cuba, Congo, Eritrea, Iran) and 2.02 for 37 countries (Afganistan, Algeria, Angola, Bolivia, Iran).	31 countries with the highest score of 9.39, ten among them are: Australia, Canada, Colombia, Cyprus, Finland, France, New Zealand, South Korea, Switzerland, United Kingdom
Comprehensive Risk, Criminal, Illicit Financial Flow, Score	Unrecorded money, illegally earned due to crime, corruption and tax evasions, that crosses frontiers from emerging or developed economies to another country/jurisdiction	min 0.58 max 10 average 4.686 median 5 from a total of 211 analysed countries	lowest score, of under 2 hits for China, Mexico, Malaysia, Russian Federation, Saudi Arabia, Thailand. Brazil, Indonesia and Vietnam	10 highest scored countries are Equatorial Guinea, Lao People's Democratic Republic, the Democratic Republic of the Congo, Somalia, Iraq, Liberia, Chad, Turkmenistan and Dominica
Comprehensive Risk, Criminal, Arms Export Controls, Score	Rates the efficiency of arms export control mechanisms of the selected country	min 0.46 max 8.3 average 5.08 median 5 from a total of 211 analysed countries	14 countries on lowest scores Chad, Somalia and the Syrian Arab Republic being on top, while 33 countries score highest, 23 of them are within the EU	highest scores for the first 9 countries are over 80 points: Denmark, New Zealand, Finland, Sweden, Switzerland, Singapore, Norway, Netherlands and Germany
Corruption Perceptions Index, Score	Indicates and assess the states or regions by the perception of corruption. It is a combined index, obtained by a mix of inquiries and evaluations of corruption, compiled by different prestigious institutions. The CPI is the prevailing corruption barometer used worldwide.	min 9 max 87 average 43.26 median 40 169 countries analysed	the lowest score under 20 marks for 14 countries, Somalia, Syrian Arab Republic, Yemen, Venezuela, Afghanistan, Sudan and North Korea.	9 countries score highest on corruption free perception, with over 80 points for the New Zealand, Denmark, Finland, Sweden, Switzerland, Singapore, Norway, Netherlands and Germany
Anti-Corruption Risk, Criminal, AML Controls, Score	Assesses whether a country has adopted AML/CFT legislation and the effectiveness of a country's AML controls and enforcement capabilities.	min 0.11 max 8.15 average 4.79 median 5.11 211 countries analysed	between 0 and 1 for Iran, North Korea, Botswana, Zimbabwe, Yemen, Pakistan and the Maldives	over 7.4 we count 7 countries Spain, United Kingdom, Bulgaria, France, Cyprus and Germany
Comprehensive Risk, Political, Government Effectiveness, Score	It analyses countries/jurisdictions in terms of the overall degree of democracy within the political culture. The effectiveness and credibility of governance instruments used to improve the quality of	min 0.05 max 10 average 4.87 median 4.82 211 countries analysed	over 15 countries score under 1, the highest risk for top 5: Yemen, Somalia, Haiti, Libyan Arab Jamahiriya, Eritrea	20 countries score over 9, with a top-five Singapore, Switzerland, Finland, Andorra, Hong Kong, Norway and Denmark.

	public services, Policymaking and the degree of independence from political interferences			
Overall score	The median score for all the SDG scores assessed for countries where more than 10 out of 17 are available.	min 2 max 9.5 average 5.56 median 5.625 total of 188 countries analysed	10 countries are at the basis with a score of under 3: Yemen, Haiti, Somalia, Eritrea, Central African Republic, Libyan Arab Jamahiriya, Chad, Burundi, Papua New Guinea and Afghanistan	11 countries have the highest scores, over 9: Iceland, Norway, Denmark, Austria, France, Finland, UK, Germany, Sweden, Switzerland, Netherlands

SDG = Sustainable Development Goals Country Scores, https://sustainabledevelopment.un.org/
AML / CFT = anti-money laundering /combating the financing of terrorism. https://www.imf.org/en/
Source: Authors' extraction from https://eikon.thomsonreuters.com/index.html

5. Conclusions

A set of mandatory international standards on NFD will have an important impact over asymmetrical information and moral hazard and will support transparency. Transparency is associated with a good reputation. Companies choose what information to disclose but most of them choose not to publish either because of their aversion to voluntary reporting or because they fail to apply adequate anti-corruption solutions.

The scores we used for our research are specific to corruption and are part of the sustainable country score, referring to United Nations goal of promoting impartial, peaceful and inclusive societies, with secure institutions and access to justice and social services. In countries with highest scores on Environment Social and Governance overall (see the EU countries, Singapore, New Zealand, Canada, Australia) corruption is weaker and their economies and business environment are stronger and cleaner. The persistent presence of corruption and bribery in the corporate environment is also proof of weak management skills. On a European level, the 2014/95/EU NFRD is supposed to assure consistency of the non-financial reporting and improvement on transparency in disclosing information.

Disclosure of social, environmental, governance and other non-financial information is made by companies to transmit information to their stakeholders and to build a good firm reputation or to react to a bad performance (Aldaz et. Al, 2015). We align our opinion with Guba et al. that NFD has to be done considering the information from the financial statement of firms. This will mirror the company's business opportunities and risk vulnerability to financial risks together with management reactions (S&P, 2020). NFD has a financial impact and can give information about the company's opportunities and its trustworthiness. Disclosure on anti-corruption can help on corruption prevention while transparency still is the most valuable tool in fighting against it.

Corruption remains a complex topic in international research and difficult to analyse, measuring it gets challenging from its occurrence to its perception by people. Anti-corruption performance can only be achieved by setting realistic goals and implementing measures aiming to limit the phenomenon, that is customized for every culture.

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Perception, Regulation and Reality Regarding Provisions in Public Institutions Accounting in Romania

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Abstract

Obviously, any research topic can be approached in a multitude of aspects. Among these, for the issue of provisions in the accounting of public institutions in Romania, we selected perceptual, normative and applied aspects. The aim is to identify opportunities to improve the quality of accounting information by focusing on risk analysis, making estimates, exercising professional judgment, with an emphasis on prospecting, confrontation with practical reality.
Among the questions we are trying to find an answer to, we identified the following: does the creative side of the accounting of provisions affect public institutions as well?; what do national and international normative patterns imply for the accounting recognition of provisions?; Is the accounting profession prepared for the new challenges focused on identifying and monitoring risks, estimates and forecasts? In order to answer these questions, we resorted to the analysis of the specialized literature regarding the perception on provisions, of the national and international regulatory framework and the practical reality of public institutions in Romania.

Key words: provisions, public institutions, accounting, reality
J.E.L. classification: M41

1. Introduction

The depth finds refuge in simple things. Any seemingly trivial subject can generate complex investigations. The proposed subject fits in this direction, without claiming to approach the exhaustive side of its exploration.

The controversies, positions on the subject of provisions could even begin with the perception on knowledge (which consists of "information, descriptions or skills acquired through experience or education" being related to the "awareness of human beings"), its delimitation from the accumulation of knowledge (involving "complex cognitive processes: perception, communication, association and reasoning" (https://ro.wikipedia.org/).

Evidently (and) this type of approach is affected about subiectivness because everyone „perceives reality through the lenses of their own distorted values and" (Goleman, http://stagiipractica.roger-univ.ro/).

The objective proposed is the extension of the exploiting area of possibilities to improve the quality of accounting information through a better capitalization of the data regarding provisions

2. Theoretical background. The panoptic image of provisions. Conceptualization and positioning in the accounting area

If in the realm of profit-generating entities the subject of provisions as a tool of creative accounting or a form of accounting engineering it is treated quite a lot by the specialized literature, it is not the same case regarding the segment of public institutions.

"The offer of accounting information is influenced by economic, political, social, and legal factors, by the conflicts of interest between different parties, as well as by the way of conceptualization and normalization of accounting." (Berheci, 2009), but also by the progress of

the information tehnologies which contribute to the optimization of the consumed time with data processing and allocating time to elaborate analysis or support services for decision making.

At the same time, it is the effect of spreading the call for professional reasoning in accounting, the concern to identify the causes that negatively influence the communication process and ways to avoid malfunctions in their provision, requiring an approach by analyzing the users' reactions.

Briefly and taking into account general coordinates, the issue of provisions is addressed in the literature, especially with reference to the entities carrying out economic activities generating profits, but which we consider valid for public institutions, some of the perceptions being the following:

- provisions represent one of the tools for operating instruments used by creative accounting (mostly in the specialized literature), on which there are different approaches, for example from being considered a financial engineering not necessarily with negative connotations on the entity (Ionescu, 2006; Munteanu V. *et al*, 2011; Moisescu, 2016; Voinea, 2013; Mihăilă *et al*, 2015), an instrument in innovating accounting which contains alternative accounting as a result of using alternative accounting treatment (Bunget *et al*, 2012), a form of legal and moral fraud (Groşanu A, 2013) of truncating/modelling the benefits using gaps and regulatory flexibility etc. Creative accounting is generated by a serie of factors and is transposed by a serie of practices (Bogdan *et al* 2006; Mihăilă *et a*l, 2015; Dingă, 2008);

Creativity is actually "intelligence when having fun" (Einstein) and can be limited by imposing perfection. In other words, we have a choice between being creative in a competitive society by trying to overcome the fear of failure or striving to be as close to perfection as possible. This is also a matter of what one's option is (https://www.iqool.ro/puterea-creativitatii/).

Concerning this idea, we meet the opinion that "accounting options have been around for a long time and do not constitute creative accounting, the subjectivity inherent in valuation is inevitable and has always existed, only a few financial mechanisms generate true creative accounting" and "which are related to accounting imagination used to translate legal, economic and financial innovations for which there are no standardized accounting solutions at the time of their launch, as well as the fact that the arrangements arising from this financial engineering are initiated according to their impact on the balance sheet and the result (Munteanu *et al* , 2011**)**

Creative accounting is similar to accounting engineering (Ionescu, ???), accounting engineering is only one component, the negative one, fraudulent of creative accounting (Bunget *et al*, 2012) which has the role of mislead, intentionally", being activated "when you want to publish erroneous information." We consider that there is a noticeable difference between the two characteristics, in the sense that the intention to mislead does not necessarily mean that the information is erroneous. The other component is the innovative accounting in which the alternative accounting resulting from the use of alternative accounting treatments is found).

Another stage of creative accounting refers to two successive components, namely legality and moral fraud (which respects the letter of the law but not the spirit of the law, followed by real fraud, for which "the step is small and invisible" from the previous form (Groşanu, 2013)

- provisions require the use of estimates and forecasts, they are supported by the principle of prudence and that of connecting expenses to income in accounting (not recognized in national legislation, but respected in practice) (IAS 37; Borfoaia, 2009; Suer, 2014), representing in the same time the effect ofexercising professional reasoning (Herbei *et al*, 2015; Mărculescu *et al,* 2012,) and a management instrument (Brijesh, 2014; Costuleanu *et al,* 2013; Popa, 2012; Zuca *et al* 2012 etc.) with arguments and counterarguments (Moisescu, 2016).

Through provisions, managers have the opportunity to model accounting figures, to choose the most convenient accounting policies and treatments, *which do not necessarily translate into a true and fair view*.

- provisions constitute the effect of the existence of niches in the accounting rules, of the accounting options and of the freedom to assess the risks, expenses or losses whose object is determined with precision, but whose realization and size are uncertain, thus creating the possibility of their overestimation or underestimation.

- provisions are associated with a series of risks, losses and uncertainties, as well as some implications of reporting in accounting, (Dicu *et al*, 2016). Risk describes the variability of the results that were obtained;

- at public institutions, according to national regulations, provisions may pe constituted for: litigation, fines, penalities, compensation, damages and other uncertain debts, guarantees granted to customers, litigations from salary rights won in court, guarantees which will be enforced by guaranteed loans (capital rates due by the following year, estimated to be paid by the guarantor), others (OMPF 1917/2005, updated). To these, by reporting to IPSAS 19, we add restructuring provisions, environmental provisions (provisions for decommissioning, dismantling, depollution or site restoration).

3. Research methodology

Our research is in line with the current trend of accounting theory and practice concerns, one of the arguments being that the "management's focus on risk estimation and reporting has led to a renewed focus and concern for contingent debt and provision reporting" (Schiff *et al*, 2012).

The hypothesis of the research, which derive from the objective mentioned above, are the following:

- It is necessary to create a conceptual and typological provision for public institutions;
- The true image demands the need to establish provisions in the accounting of public institutions;
- Accounting recognition of provisions contributes to improving the quality of financial reporting of public institutions:
- The dissemination of information on provisions may influence the users of accounting information in the context in which the principles of governance are becoming more present in the area of public institutions.

The concrete ways of the fundamental, descriptive approach of the subject were the following: reviewing the specialized literature on provisions, studying the national and international legislation, analysis and critical evaluation of the financial-accounting documents (respectively the data concerning provisions in audit balances and accounting reporting documents).

4. Findings

Professionalism, reasoning, conventionality in searching the reality in accounting

Although we are in the era of computers, of advanced technological rigor, where data are taken over and processed with the utmost accuracy, still "the accuracy of economic and financial data remains dependent on the reporting framework and techniques for manipulating results" Popescu, 2006).

Some components of the structures specific to accounting require estimates or forecasts, and their value is influenced by the optimism or pessimism of the one who exercises professional reasoning in accounting. Through the estimates, opinions are expressed and value quantifications are made more or less plausible depending on the time span considered, in conditions of uncertainty.

The provisions are on the one hand the result of the "best" estimates of future debts but also a means to exploit, not necessarily in a negative sense, but on the contrary, the optional character of their constitution offered by the normative framework: "according to 1917/2005, point 3.2. Public institutions may constitute provisions. Under a value of appearance, they cannot surpass the necessary amounts to estinguish the current obligation when the balance sheet was realised.

Also, as I mentioned before, they are required by the precautionary principle. Prudence refers to the impossibility of recognizing asset increases or debt reductions (Dicu *et al*, 2015). It presupposes "a reasonable assessment of the facts, in order to avoid the risk of transferring the uncertainties of the current period in the future. The reasonable character of the assessment obviously affects the objectivity characteristic of the accounting information, and the facts/events can target both the past and the future with incidents on the present through the annual financial statements.

The creation of provisions has an obvious effect on the patrimonial result, in the sense of its diminution in the financial year in which it is created and of the increase when it is resumed at income. How accurate is the assessment of the probable debt when we make provisions? What

about its enforceability? How is the decision objectively justified which is the subject of that provision.

Schematically and by reference to the provisions of the normative framework, the accounting recognition of the provisions presupposes the fulfillment of the conditions mentioned in the scheme below:

Scheme no. 1 Conditions to recognize provisions

<table>
<tr><td rowspan="3">provisions</td><td rowspan="2">The existence of a current obligation generated by a previous event;</td><td>• legal (from a contract or a legislation)</td></tr>
<tr><td>• implicit (previous practices, written policies, specific declarations which indicate assuming and honoring certain responsabilities</td></tr>
<tr><td colspan="2">Probability to exit the necessary resourcesto honor the obligation
Possibility to realize a believable estimation of the obligation</td></tr>
</table>

Source: Author's contribution

„Accounting instrumentring of provisions is a phenomenon involving the use of the imagination of professionals in this field, sometimes risking to go beyond the limits of legality, (Ciocan Claudia-Cătălina, True and Fair View: Incentive or Inhibitor for Creative Accounting?, Ovidius" University Annals, Economic Sciences Series Volume XVII, Issue 1 /2017, pp. 451-455).

Some provisions may have a negative impact negativ on the image of the entity (in the sense that users of accounting information can identify the losses to be faced by the institution), others, a positive one (indication of transparency, risk-taking, objectivity).

What is certain is that regardless of the effects, they must be brought to the users' knowledge in order to maintain their credibility by providing information that meets all qualitative characteristics (relevance, exact representation, comparability, intelligibility, verifiability, opportunity), but also for reasons related to the professional deontology of each producer and provider of financial-accounting information and not only. Establishment and reporting should also take into account the changes that have taken place at the normative level in the sense that the finely integrated reporting (which contains through the non-financial statement also aspects related to the environment, social and connected to the employees, as well as on respecting human rights, fighting against corruption and bribing (https://eur-lex.europa.eu/legal-content/RO), is gaining more and more ground in Romania as well, and through the accounting instrumentation of provisions, this orientation must be taken into account.

What is the reality in the accounting practice of some public institutions in Romania?

At the level of the school units, provisions were set up for litigations from salary rights won in court (GEO 71/2009; GO 17/2012), differentiated by terms of exigibility (under 1 year, respectively over 1 year). Obviously, they have repercussions, through centralized accounting, on the financial statements of senior loan officers, administrative-territorial units, including for the 2018-2019 school year, respectively county school inspectorates, for salary rights that will be earned in court after September 1st 2019, as a result of the modification of the way to finance the salary rights, in the sense of their support from the state budget (law 201/2018, point 6, which amends article 104, paragraph (2) of the national education law no. 1/2011) .

Although OMFP 416/2013 stipulates that the amounts related to outstanding payments and litiggations with due or uncertain value to be recorded in the accounts as provisions, we did not find such situations in the accounting practice of the analyzed public institutions… nor other categories of provisions constituted by the 57 public institutions under study.

Beyond the categories of provisions expressly mentioned by the national regulatory framework, it is possible to set up at the level of public institutions to be identified as possible at least with the following: provisions for restructuring (including for the benefit over the termination of the employment contract, according to IPSAS 19), for reshaping the social pyramid, for the benefits of

the employees on untaken rest leave (for example, retirement allowances may be granted established or not on the basis of actuality calculations depending on the policy of the institution, payments for untaken rest leave), provisions for the environment.

Provisions for restructuring may be established as a result of the existence of a program planned and controlled by management and which significantly modifies either the scope of the activity performed by the entity (giving up to an segment of activity or a service, moving up an activity), or the manner in which it carries out the activity (changes in the management structure, reorganizations that have a significant impact on the nature and purpose of the activities of the entities (IPSAS 19, pct. 18, 81). The restructuring decision must be communicated to those affected by this measure before the reporting date.

Provisions for reshaping the social pyramid refer to the costs of dismissal, recruitment and training of staff so that a strongly unbalanced age pyramid (the base being represented by older staff and the top by young staff) to turn into a distributed curve according to a normal law.

Environmental provisions can be set up, for example, when there are draft regulations requiring the removal of a contamination, the existence of a previous conduct to honor the published environmental policies.

The possibility of reimbursing expenses necessary to settle a provision is not regulated at a national level

Depending on the structure of the recognized provisions, the directions of interest and the preoccupations of the public institutions can be appreciated for:

- relations with third parties in terms of legal incidents generated by litigation, the quality of goods delivered, work performed, services provided (litigation, guarantees granted, contracts with a fee);
- environmental protection, as a form of assuming responsibility towards future generations (decommissioning of tangible assets, site restoration) although "identification and data collection in respect of environmental obligations can be dificult";
- human capital (termination of employment, pensions and other similar benefits)

The presentation of information on provisions through the financial statements is an indication of the risks assumed, the uncertainties that hover over the activity, as well as the possible losses of the entity, but also the recognition that they exist, being also a means of covering/diminishing through income. of the estimated losses when they actually occur.

The theory sounds good, we say, but even at the European level it is appreciated that PSAS 19 Provisions, contingent liabilities and contingent assets' might prove to be difficult to apply in practice and "new information flows may need to be defined and processes implemented to identify existing and potential obligations, collect data and measure government obligations. This should be part of a good year-end closure process" (https://circabc.europa.eu/sd/).

5. Conclusions

The provisions are attached to the idea of modeling the accounting result of the entities, a reason for which, in this context, we wonder how important the provision policy is for the public institutions and what would be the reason for resorting to such an approach? What are the reasons for using such a tool?

Including for public institutions we identify at least the following reasons: the refusal to admit failure, the freedom of the accounting profession, the exercise of professional reasoning, etc.

In our opinion, good faith and professionalism are needed in the realization of the finished product of accounting - financial information under the auspices of the true image.

We find that there are also categories of provisions that are oriented towards sustainable development, such as restructuring, for the reshaping of the social pyramid, related to human resources, environmental protection, etc.

Also, the professional reasoning and the changes that information technology produces in the field of the accounting profession attract its moral obligation to investigate in a professional manner niches that were once blocked by the workload and obtaining financial reports. Creativity, intelligence must not be obstructed, as long as it does not contravene any norm. On the contrary, the valences of freedom offered by the exercise of professional reasoning must be promoted, the

orientation towards progress, the exploitation of the facilities offered by knowledge and modernism in order to be the best in your field of competence.

By approaching the reality regarding provisions in the accounting of public institutions, we consider validated the previously formulated research hypotheses, respectively that it is necessary to create a conceptual and typological framework on provisions for public institutions correlated with the particularities of their object of activity, provisions must be recognized in the public services accounting in Romania, because it contributes to improving the quality of financial reporting.

A different mentality, a different way of seeing the profession ... professional may influence the users of accounting information disclosed by public institutions and can contribute to improving their management.

Any entity must achieve a good management risk, respectively to "identify vulnerabilities and threats and to elaborate minimizing measures of their impact on information resources"

How should a professional act in relation to the sizing and accounting recognition of provisions? To indulge in a more comfortable reality (not necessarily without the burden of the workload due to the redundancy of various documents) or to try to identify and implement new approaches to accounting information that would be a measure of the response to the multiple challenges ahead. the profession, today, perhaps more than ever.

This last positioning is desirable, however, unfortunately the connivance of the provisions with the professional reasoning remains for the time being a desideratum that still has to cover an considerable distance until it becomes reality.

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Non-financial Reporting and Performance in Pre-university Education

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Abstract

Education has been and remains a fascinating and sensitive subject, involving: learners, teachers, the family and the community. Education defines, individualizes and prioritizes individuals. Sustainability in any field of activity is defining, and the efficient management of the educational process is the basic condition to generate performance.

This paper diagnoses non-financial reporting segments in pre-university education (orientation towards tertiary education, baccalaureate promotion, communication and public transparency), considered by new significant complements of the financial-accounting dimension in defining and assessing performance, in a context imposed by the complex transformations of today's society. The approach is desired to be an argument for the need to resort to governance in pre-university education and not only.

Key words: non-financial reporting, pre-university education, performance
J.E.L. classification: M41

1. Introduction

Education is "the set of actions and influences meant to allow the human being to develop physical and intellectual abilities, moral and aesthetic attitudes and feelings, in order to have a responsible and optimal social integration as a citizen" (Dobraniș). As a social action, education mediates and diversifies the relations between man and society, thus favoring the development of man through society and the society through people.

The improvement of the public services in education is a part of the organizational development which represents a planned effort, coordinated by the management of superior level, of the hole organization and which has the purpose to grow the efficiency by: (i) improving the concordance between the organizational structure, the procedural one, strategy, personnel and culture of the institution; (ii) developing new and creative solutions; (iii) the development of the institution capacity to new.

A solution in this sense could be non-financial reporting, or in other words, the realization of sustainable reporting by ensuring the complementarity of financial reporting of the pre-university educational institutions. This involves on the one hand the connection of schools in tandem with the evolution of educational systems, and on the other hand the dissemination of non-financial indicators, along with the financial ones towards various categories of users, especially potential students, parents, the community through modern information technologies.

2. Theoretical background

Studies executed more than half a century ago (1970s) reveal the role of education in the development of society, through the effects it generates on people's attitudes. Thus, the historical periods of economic and social development have been accompanied by an increase in the "need for accumulation" of the population, which can only be met through education, and "modernization of society" cannot be possible without an appropriate individual attitude that is, an overwhelming proportion, the result of education" (Cicea *et al*, 2005).

Major and rapid changes produced globally in economic, social terms, the impact of unprecedented development of information technologies entail the need for flexibility, adaptability of skills and knowledge, efficient use of knowledge, performance orientation.

In this context, "Education makes a difference, and the interest of general policies appears more and more focused on the power of education, in general, of higher education, in particular, in increasing the level of well-being and implicitly of a nation's competitiveness (Badea, 2012).

Recent transformations in the organization of educational systems, aim at three directions (Hatos, 2019) as shown in the figure below:

Figure no. 1. Directions for organization of educational systems

Transformations in organzing educational systems	management	- implies a change in the governance of education which aims at principles borrowed from the market economy; - promotes the effectiveness of education and the subsequent evaluation of school management based on efficiency criteria;
	marketing	- emphasizes the role of parental choice and competition between schools (and by displaying educational offers) - educational vouchers are used to finance schools, which are distributed to parents,
	vocations	- involves covering the supposed technical functions of education by orienting towards the transmission of skills and knowledge that are needed immediately on the labor market;

Source: Author's contribution

To these transformations are added the promotion of equal opportunities and ensuring a quality education for all, by representing all levels for all categories of population and by the access of students to knowledge of the same type and having the same development conditions of the educational process.

The analysis and evaluation process concerning the quality of education, the perception of the population must be taken into consideration, "knowing that a positive perception of education leads to actions favorable to education, to the inclusion of school in the strategies and projects of individuals in the medium and long term, meanwhile a negative perception increases the distance between the individual and the system, accentuates the tendency to overestimate the costs and risks of education and to diminish the benefits it brings" (Neagu, 2011).

Quality is a subtle problem, complex from the point of view of equilibrium that needs certain costs, which must by analyzed from the point of view of the non-qualitative effects, which can be more expensive.

There more variable which must be considered precious elements of quality: the general atmosphere in which the activity is taking place, the language and the managers attitude, the clarity of the definition and the responsibilities delimitations for each action, the capacity to determine the diagnosis and to take measures, the eloquence of the change needs and the resistance grade of doubt etc. (Achim *et al*, 2005, 133).

Keeping of the quality level in order to create a favorable impression of the high quality, of a value that can be appreciated and of a service provider sincerity. The public services must be offered conditions of equity.

Education is a quality in itself and a particularly important means of achieving sustainable development. Education, training, culture are factors that favor job creation, economic growth and social equity. In that matter, at European level we want to create an European area of education by the year 2025.

Complementary to these guidelines, we appreciate the importance of disseminating the actions taken and the results of the educational process at the level of each education provider.

3. Research methodology

Theoretical accounting constructions use the pedestal called faithful image, simultaneously and paradoxically, a static meaning, as a support of the accounting regulation and at the same time mobile, due to the possibility of regulatory evolution.

Through this paper we try to emphasize the values of non-financial reporting transposed at the level of pre-university education institutions in the process of assessing performance and adapting to the changes of the society. In order to achieve this goal, we resorted to the revision of the specialized literature, of the national and European legislation that addresses the subject of non-financial reporting, analysis and synthesis of information, the projection of the non-financial reporting model for pre-university education institutions.

4. Findings

Non-financial reporting, which are the components of the integrated reporting and which complement the financial reporting are a current concern for researchers, in orienting entities towards overall performance, but also to reflect their attitude towards the community and the environment.

In the global performance equation, non-financial reporting has a special role, because it promotes respect for human rights, it focuses on creating value, on the optimal use of all capital (human, material, financial, natural) and supports the reliability of financial reporting. It implies sustainable, social and environmental responsibility.

Among the criteria that could be applied for pre-university education institutions in regard to non-financial reporting we can identify:

- publishing on the websites of the school units the information regarding the corporate social responsibility (integrated sustainability report, non-financial statement)
- ensuring the transparency of information (the reporting framework used, involvement in the development of environmental, social and personnel protection policies).

We appreciate that pre-university education institutions can use as benchmarks some of the general frameworks and organizational reporting structures existing or under development, respectively: the Global Reporting Initiative (GRI) (performance and impact on the environment, the society and the economy); the UN Global Agreement (the human rights, the labor force, the environment and anti-corruption), the Council for Climate Reporting Standards (CCRS) (environmental information), the Council of the International Accounting Standards for the Public Sector (CIASPS) (the performance of services and long-term sustainability of the finances in the public sector) etc.

- key indicators of non-financial performance (passing the baccalaureate exam, the participation rate in tertiary education, the employment rate of graduates not included in tertiary education, the dropout rate, successful examples, the quality of the teaching staff, etc.)
- social inclusion: supporting the vulnerable groups of students, volunteering, digitization

The accounting profession can have a significant contribution and play an important role in the development and implementation of improved organizational reporting, according to IFAC, including by schools (https://ceccar.ro/ro).

By adapting the estimate regarding the non-financial reporting (stipulated by OMPF no. 1938/2016 which partially transposes the estimate of the Directive 2014/95/EU of the European Parliament) for public interest entities with over 500 employees, we appreciate that at the school level, the sustainability can include, among others, the aspects presented in the following figure:

Figure no. 2 Non-financial reporting in pre-university education

Informational content of the non-financial reporting for pre-university education institutions	- specifying the object of activity, the mission and the objectives pursued and the main directions of action in order to acheive them
	- description of the policies that were adopted regarding the environment (the impact of the activities, the attitude towards the environment), social and personnel aspects (equal opportunities, social dialogue, respect for employees' rights, support for the vulnerable social groups, for the local community), human rights, fight against corruption and bribery
	- relevant results obtained as a result of applying environmental policies, social and personnel policies, management policies
	- the main risks which come from the activities in progress
	- key-indicators regarding non-financial performance

Source: Author's contribution

We further present some statistical dimensions at national level for pre-university education, including the effects generated on education at a tertiary level. We believe that each pre-university education unit should publish non-financial information (and not only) on its own websites.

Regarding the promovability of the baccalaureate exam between the years 2011 and 2016 the situation is the following:

Table no. 1. Graduates of the baccalaureate exam in the period 2012-2019

Year	**2011/ 2012**	**2012/ 2013**	**2013/ 2014**	**2014/ 2015**	**2015/ 2016**	**2016/ 2017**	**2017 /2018**
Number of people who graduated	101.655	112.223	102.718	118.313	95.940	100.774	95.692

Source: https://insse.ro/cms/ro/tags/anuarul-statistic-al-romaniei

The indicator on passing the baccalaureate must be analyzed in correlation with the number of graduates, so that in the table below we present the evolution of the number of high school graduates:

Table no. 2. Evolution of the number of high school graduates between 2012/ 2013 și 2017/2018

School years	**2012/ 2013**	**2013/ 2014**	**2014/ 2015**	**2015/ 2016**	**2016/ 2017**	**2017/ 2018**
Number of graduates	200.004	172.613	189.855	152.741	153.590	148.653

Source: https://insse.ro/cms/ro/tags/anuarul-statistic-al-romaniei

In the following table we present the dropout rate in pre-university education, the most unfavorable situation being registered in post-secondary education and foremen. Obviously, it is necessary to identify the causes and take measures so that the situation improves.

Table no. 3. Dropout rate in pre-university education in the period between the school years 2012/2013 and 2017/2018

School years / Education Level	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018
Primary and lower secondary education	1,4	1,5	2,0	1,8	1,6	1,7
Upper secondaryand vocational education	2,9	2,9	3,5	3,6	2,6	2,6
Post - secondary non-tertiaty and foremen education	8,9	7,9	10,7	9,7	10,0	9,2

Source: https://insse.ro/cms/ro/tags/anuarul-statistic-al-romaniei

The number of Romanian students who are in college, the undergraduate studies, decreased to 377,370 people at the beginning of 2019 (the lowest in the last 20 years), given that in the previous year there were 383,364 people, and in 2010 the number of undergraduate students was 761,541 people (https://www.edupedu.ro).

In the next tabel we present the evolution of the number of students enrolled in the high school education and Number of students – bachelor's study:

Table no. 4. Evolution of the number of students

School years / Indicators	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019
Number of students – bachelor's study	464.592	433.234	411.229	410.697	405.638	408.179	402.696
Number of students in hight school education	831.810	776.616	727.072	673.615	650.832	637.706	629.755

Source: https://insse.ro/cms/ro/tags/anuarul-statistic-al-romaniei

Regarding the quantitative dimension of tertiary education institutions, the decrease in the total number of participants in tertiary education has several causes: a relatively smaller number of people who pass the baccalaureate exam, migration, demographic decline and underfunding etc.

According to the Tertiary Education Development Strategy (https://www.edu.ro/), the Romanian economy still faces a low level of employment and participation. The national objective for employment, according to the Europe 2020 Strategy, is 70% for the population aged between 20 and 64, and in the European Union the objective is 75%.

The EU 2020 strategy focuses objectives connected with education and training, due to their influence on economic growth (increasing employment, productivity, participation, skills building, etc.).

Therefore, the labor market requirements need to be known, analyzed and strengthened, especially in regard with the transversal skills. Action must be taken to encourage and support greater participation in tertiary education, to improve the quality and relevance of tertiary education; developing commitments to the economy, in particular in relation to the labor market and innovation/entrepreneurship.

Given the important contribution that universities have in the specialization of the labor force, in economic development, it is absolutely necessary to synchronize the current offer of tertiary education with the needs of the labor market.

"Technology is rapidly changing the way we interact and work, connecting communities and workers in increasingly sophisticated ways and opening up new opportunities. Therefore, young people need to develop digital fluency and science, technology, engineering and math (STEM) skills from an early age, (...) in modern society" (https://qualifi.net/news/entrepreneurship-world-economic-forum-website-2/).

Undoubtedly, the human resource is one of the most important resource of any organization, especially since it is responsible for the formation of future generations that will contribute to the development of society.

From a numerical dimensional point of view, the situation regarding high school teachers is thus presented:

Table no. 5. The evolution of teaching staff in high school education between the school years 2012/2013 and 2018/2019

School years	2013/ 2014	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019
Number teaching staff	57.080	56.843	55.913	55.409	54.942	54.257	53.835

Source: https://insse.ro/cms/ro/tags/anuarul-statistic-al-romaniei

We consider particularly important the involvement of human resources, teachers, but also students, to achieve through them the performance indicators.

Without discussing the selection method, we consider that a special attention should be paid to the quality of the human resources that are recruited, in order to promote stability in schools, considering the effects of the psychological impact on students.

Pre-university education has a predominantly public character, therefore, beyond the financial motivation limited by restrictive legal patterns, special attention must be given to intangible motivation, having well-known effects on the attitude and involvement of employees in order to achieve the performance indicators.

School management structures have to promote the implementation of a participatory system that enhances the knowledge and skills of staff, a climate of trust in employees, their autonomy, reducing formalism in teacher training, collaboration with academia to update the information content of the subjects taught, to identify and implement objective criteria for their evaluation, the periodical analysis of the satisfaction degree of the employees in relation to the professional activity carried out, but also in relation to management.

We consider communication to be the key to competitiveness in any field of activity, a complex process that leads to the achievement of an optimal circulation of information to achieve the proposed objectives. Communication, which nowadays has become multidirectional (involves teachers, students, family, employers, population, etc.) provides continuous, crucial feedback for learning and processing changes in the education system and the labor market, with favorable implications for building mutual trust, stimulating involvement and encouraging diversity.

5. Conclusions

Quality must be understood as a standardized measure of excellence that beneficiaries establish for certain educational services: the students, the parents, the employers are those who determine what a quality educational program should be, and school should provide that program as it was defined by the beneficiaries. So, quality is ensured by school, but it is defined by its beneficiaries.

It is desirable that pre-university education institutions be concerned with sustainable development and valorize the most of their resources. In this sense, we consider useful the concern of the management but also of the accounting profession for the transparent dissemination of some revealed information, complementary to the financial ones. Correlated with the specifics of the economic, social, cultural, historical passion in which they operate, they add value to financial-accounting information and can contribute to the provision of public education service at a high-quality level.

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Measuring the Performance of Merger Operations

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Abstract

Measuring the performance of external growth operations is important information because it allows to justify whether or not to undertake such operations. A few questions arise in this regard. What is performance and how do we measure it? Are there types of operations that perform better than others? The aim of the research is to determine the factors that influence the performance of mergers and acquisitions, discovered in reference publications in the field, with the help of SPSS 20.0. The low value creation found is more beneficial to the shareholders of the target company than to those of the companies initiating the operations. The observed results differ greatly depending on the fields of activity, the type of operation and other factors.

Key words: mergers and acquisitions, economic performance
J.E.L. classification: L25, G34

1. Introduction

While some studies (Healy, Paleu, and Ruback, 1992) reveal a significant improvement in operational performance, others reflect a significant decrease in this performance as a result of mergers or acquisitions (Ravencraft and Scherer 1989). As for mainland Europe, Gugler, Mueller and Yurtoglu have shown that, on average, profits increase after mergers, but there has been a significant drop in sales. Authors Powell and Stark analyzed the influence of mergers and acquisitions made between 1985 and 1993, and the results obtained indicated that the improvement in operational performance as a result of these operations is modest. On the other hand, Dickerson, Gibson and Tsakalotos reveal, also in the case of Great Britain, a significant decrease in operational performance after mergers or acquisitions.

The first finding that can be drawn from these studies is the great diversity of results obtained. In each of the issues addressed, it is almost always possible to find two different studies that lead to opposite conclusions. There are several reasons for this:

- diversity of samples used both in terms of regions, periods, types of operations and sectors of activity;
- diversity of methods used: economic and accounting approach / financial approach, short-term / medium-term research.

However, if we analyze these results in a more general way, taking into account the major trends, we can identify some common features of the performance of external development operations. However, the results obtained must be interpreted with great caution. The conclusions are all the more valid as they are placed in a context close to that of the empirical studies performed. Regarding the operations carried out by activity sectors, the conclusions need to be further relativized. In this respect, it is important to note that in the vast majority of cases, the research was conducted in an Anglo-Saxon context, marked by a stronger predominance of financial markets in the functioning of the economy than in European or Asian countries. In addition, most of the results obtained relate to large listed companies, characterized by a greater or lesser separation between control and management functions (provided entirely by managers) and ownership and risk-taking functions (provided by shareholders).). Finally, a last limitation refers to the focus of research works on the

manager-shareholder relationship and on the notion of creating value for shareholders. Indeed, the extension of research to other directly interested parties in the undertaking may contribute to the broadening of the value creation point of view and may result in a substantial change in the conclusions. In particular, they may lead to the emphasis on the notion of value transfer to the detriment of value creation.

2. Literature review

Two major schools of thought face each other in measuring and analyzing the performance of external growth operations (Meier and Schier, 2006). The first ideological school represented by the supporters of the industrial economy favors the direct measurement starting from the accounting and financial data of the enterprises. It compares the evolution of operational performance indicators before and after an external growth operation during the analyzed period. In this sense, the results obtained most often show that external growth operations are not performing. The second ideological school, represented by researchers in management and, in some special cases and in the field of enterprise finance or financial management, favors measuring performance through the impact of the operation on the evolution of the stock market of the target company and the acquiring or absorbing company. This approach is based on the assumption of market efficiency. According to this school, the market immediately anticipates the effects of the external development operation when the operation is announced and incorporates the expected effects into the share price in terms of creating value for shareholders. The studies carried out in this field constitute a combined test of the hypothesis of market efficiency and the performance of mergers and acquisitions. They tend to endorse a certain effectiveness of these operations.

2.1. Measuring economic and accounting performance

The most frequently used technique is that of association, which consists in comparing the results of enterprises that have carried out an external growth operation with those of a sample of comparable companies (in terms of field of activity, size, etc.) that have not opted for this. choice. The purpose of these studies is to identify whether, on average, external development operations improve the buyer's results. The analysis of economic and accounting performance is done to compare before and after the external growth operation, starting from the evolution of performance indicators. Among the most used indicators are the economic rate of return, the rate of financial profitability, the evolution of sales or market shares. Almost 50% of external development operations are considered failures (Ravencraft, D.J., Scherer, 1989). On average, there is a decrease in economic performance after performing external growth operations or rather a slight improvement in performance (Trautwein, 1990). As a result of external growth operations, companies tend to lose market share. This trend is all the more valid when it comes to conglomerate external growth. It is less clear when it comes to horizontal operations (Meier, O., Schier, 2006). On the other hand, other studies show that internal development proves to be more profitable in the long run than external development (Dickerson, A.P., Gibson, H.D., Tsakalotos). These results were obtained by analyzing the evolution of performance before and after an external development operation. It should be noted that Healy, Palepu and Ruback obtain different results when comparing the evolution of the performance of companies that have driven external growth with the average evolution measured starting from a reference value consisting of a sample of companies belonging to similar sectors of activity. Their study looks at the top 50 mergers made in the United States during the 1980s and demonstrates improved results.

Criticisms of economic and accounting research

The use of accounting or economic measuring instruments has been criticized by many authors, mainly for two reasons (Meier, O., Schier, G, 2006):

- the first is related to the non-explicit consideration of risk in this type of measurement when external growth operations profoundly change the risk profile of the buyer. This is the case for decreases in profitability offset by decreases in the level of risk. In this case, it is difficult to decide in terms of performance, other than to refer to an explicit theoretical model in terms of the level of risk, as is the case with approaches based on the notion of value creation;

- the second category of arguments that militate against such studies concerns the use of accounting data, the scope of which can be quite changed by changes in accounting policy directly or indirectly related to the external growth operation. Among the possible distortions, we find methods of accounting for goodwill, revaluation of certain assets as a result of mergers, treatment of intra-group transactions, amortization policy of the ensemble after the merger. Other authors (Peasnell, K.V, 1996), however, advocate these approaches, and emphasize the possibility of using indicators, such as cash flow that avoids specific indirect methods related to accounting for goodwill and depreciation policy changes.

2.2. Measuring financial performance

Another way of measuring the performance of mergers and acquisitions is to analyze the impact of these operations on the evolution of the stock price of the shares of the target company and the acquirer. This approach is based on the assumption of market efficiency and assumes that the market immediately anticipates the effects of the external growth operation through mergers or acquisitions, right from the moment the operation is announced, and the expected effects on value creation are reflected in the share price.

The main research conducted in this field is based on the methodology called event study. There are two approaches according to which it is sought to study the impact in the short or medium term. In the short term (ex-ante), the method is based on the calculation of an abnormal return rate, defined as the difference between a rate of return observed at the time of the announcement of the external growth operation and a theoretically estimated rate of return. as equal to the expected rate of return if the operation had not been announced. In the long run, the compound yield is compared with an average compound yield, calculated on a representative sample, consisting of companies from identical sectors, of comparable size and similar book-to-market rates (Fama, EF, French, K, 1992). . Book-to-market is a rate that defines the ratio between the carrying amount of an enterprise and its market value. The lower the value of the rate, the higher the market value of the company compared to its book value. This may be a signal of growth opportunities within the enterprise.

3. Research methodology

The research approach has an empirical character, proposing to validate its working hypotheses through a deductive-inductive process. The study uses methods specific to the quantitative (positivist) approach.

The aim of the research is to determine the factors that influence the performance of mergers and acquisitions, discovered in reference publications in the field. Our research started from the selection of articles from databases such as Science Direct, SpringerLink, Wiley Online Library, ProQuest Central, Oxford Jornals Collection, Cambridge Journal Online, Emerald Publishing Group; Sage and Thompson ISI - Web of Science, with the following characteristics: from the period 01.01.2001 - 01.01.2020, by keywords M&A performance and M&A determinants, with the impact factor h> 10.

Analysis tools and procedures: data collection by observation method, data sorting and grouping, tables, graphs. The study is based on the method of economic-financial analysis that contains a set of methodological steps and procedures to establish and quantify the causal relationships between the studied indicators and the determinants: comparison of financial statements, analysis by rates (Ratios), use of the computer tool for data storage, calculating rates, determining financial balances, determining the evolution in time and space of the indicators.

4. Determinants of the performance of mergers and acquisitions

We analyzed the performance of mergers and acquisitions in the U.S. market between 1973-1998, noting that the merger or acquisition company manages to create equity, but this is modest (it is between 1.4 % and 2.6%) (see table no. 1).

Table no. 1 Average abnormal rates of return on the US market

	1973-1979	1980-1989	1990-1998
Absorbed company + purchasing company	1,5%	2,6%	1,4%*

Source: Andrade, G., Mitchell, M., Stafford, E., 2001

** From a statistical point of view the significant threshold is 1%*

If analyzed separately, the acquirer on the one hand and the target company, on the other hand, there is a significant increase in share value for the target company (around 16%) and a decrease in the case of the acquirer (between -1 % and -0.3%). Thus, the average performance of external growth operations does not appear to be satisfactory, but it must be assessed according to the variables taken into account.

These variables refer to the way of external growth (merger or acquisition), the degree of closeness between the activity of the target company and the acquirer, the method of payment used in the transaction (shares or cash), the type of acquirer or target company (glamorous or value), the relative size of the target, the degree of indebtedness of the acquirer and its availability reserves or the level of expansion.

Type of operation, merger or acquisition

The performance of external growth operations is significantly different depending on the nature of the operation, merger or acquisition.

Table no. 2 Creating value depending on the type of operation

	Acquisition	**Merger**
Acquirer	4%	0%
The target company	30%	20%

Source: Jensen, M., Ruback, R., 1983.

The results obtained by Jensen, Ruback and Agraval show that, in the case of a merger, the performance is lower than in the case of an acquisition.

The degree of closeness in terms of activities between the target company and the buyer

The degree of proximity seems to exert a positive influence on the performance of mergers and acquisitions. The closer the activities are, the more likely the operation is to create value. These operations allow for synergies, but at the same time, the formation of diversified groups is associated with a number of undesirable issues such as rigidity and bureaucratic inefficiency of large companies, the difficulty of managing such a company, divergent interests of managers, etc.

The losses associated with these issues can outweigh the synergies, having a negative impact on the company's performance.

And in this case, the results are heterogeneous. Thus, while certain studies (Healy, PM, Paleu, KG, Ruback, RS) show that mergers and acquisitions made for diversification lead to a decrease in the performance of the new enterprise, others (Linn, SC, Switzer, JA, 2001) show the relationship between mergers and acquisitions for the purpose of diversification and the poor performance of the newly formed enterprise as insignificant. On the other hand, Kruse, Park and Suzuki claim that the performance of enterprises after the diversification operation is higher.

Method of payment

Most studies (Andrade, G., Mitchell, M., Stafford, E, 2001) show that operations financed by liquidity are more efficient than those financed by shares (see table no. 3).

Table no. 3 Abnormal rates of return on the US market between 1997-1998

	How to remunerate shareholders	
	Actions	liquidity
Target + buyer	0,6%	3,6%*

Source: Andrade, G., Mitchell, M., Stafford, E., 2001

** From a statistical point of view the significant threshold is 1%*

One explanation for the results of the studies would be that operations paid for with money can facilitate the replacement of the non-performing management team of the target company. Authors Parino and Harris showed in a study of 197 mergers and acquisitions that the performance of operations depends on the management team that will lead the new company. Thus, if the management team is replaced, the performance of the enterprise will increase, exceeding the average recorded in the sector. Another explanation would be that the operation can be financed by borrowing, which restricts the availability of funds for managers (who are often tempted to make irrational expenses), thus requiring managerial discipline and reducing problems with available treasury.

The nature of the buyer glamorous enterprise or value enterprise

The issue of the type of purchaser has been treated in the literature. Researchers Rau and Vermaelen (Rau, R., Vermaelen, T, 1998) categorized glamor firms as those enterprises that have a book-to-market ratio. These companies have an important development potential which gives them a very important financial value in relation to the value of the accumulated assets (book value). In contrast, value firms are those that have a higher book value / market value ratio. These companies are generally better anchored in the sector. They benefit from a more mature field and have higher profits. In terms of external growth, this distinction is important, as there are quite significant differences in performance, especially in the long term. The authors Rau and Vermaelan calculated the abnormal returns for three years for the operations carried out between 1980 and 1991 and concluded that the glamorous companies have significantly lower results than the value type ones (see table no. 4).

Table no. 4 Average abnormal rates of return

	Acquisition	Merger
Glamor type enterprise	4%	-17%
Value enterprise	8%	16%

Source: Rau, R., Vermaelen, T., 1998

In addition, the difference is even greater if it is a merger operation than a acquisition operation. Thus, glamorous companies register abnormal returns of -17% in the case of mergers and 4% in the case of acquisitions. On the other hand, value companies record abnormal returns of 8% in the case of mergers and 16% in the case of acquisitions. Glamorous companies are companies that have had increases in stock prices, cash flows and revenues in the past, which increases managers' confidence in their shares. In such companies, decision makers are likely to support managers in order to carry out external growth operations. On the other hand, lower performing enterprises will be more cautious in carrying out external growth operations.

Relative target size

The size of the target seems to be an important determinant of the performance of mergers and acquisitions. A study conducted by Mercer Management Consulting (Mercer is the largest human and financial resources consulting firm in the world, and is considered one of the most prestigious consulting firms in the world, operating in more than 40 countries, with more more than 19,000 employees) show a significant deterioration in performance if the target company exceeds 30% of the buyer's turnover. Relative size is an important factor in assessing the complexity of post-acquisition management. The specific issues related to the integration of the target and, therefore, to the effective achievement of synergies are all the more important as the relative size of the target is more important. We must not infer from this that a relatively small target is necessarily a proof of success in an integration policy. Other factors are taken into account, such as the proximity of activities or the convergence of organizational or managerial logics.

Results regarding the size of the absorbed company were nuanced by the research conducted by the authors Fuller, Netter and Stegemoller on more than 3,135 operations that include target companies listed or unlisted on the Stock Exchange. Table no. 5. presents the main results obtained according to the relative size and the way of financing the operation.

Table no. 5 Abnormal profitability of the buyer depending on the relative size of the target

Target size in % of buyer size	Average abnormal returns	Distribution of results according to the financing method of the operation		
		Cash payment	Payment in shares	Mixed payment
Results obtained on the whole sample				
Less than 5 %	1,04% (*)	0,84% (*)	1,31%(*)	1,26% (**)
5%-9,99%	2,02% (*)	1,86% (*)	1,94% (**)	2,37% (*)
10%-19,9%	2,12% (*)	2,71% (*)	1,68%	1,64% (**)
More than 20%	3,23% (*)	4,86% (*)	0,17%	3,81% (*)
Results obtained when the target is listed				
Less than 5%	0,62%	-0,15%	1,93 % (**)	-0,03%
5%-9,99%	0,13%	-1,21%	2,11 %	-2,25%
10%-19,9%	-0,97%	3,28% (*)	-2,81%(***)	-1,59%
More than 20%	-2,56% (*)	0,74%	-4,37% (*)	-1,1%
Results obtained when the target is not listed (autonomous company)				
Less than 5%	1,03% (*)	0,76% (**)	1,26% (**)	1,32% (*)
5%-9.99%	2,08% (*)	1,88% (*)	1,5%	2,79% (*)
10%-19,9%	3,07% (*)	3,07% (*)	4,34% (*)	1,7 % (**)
More than 20%	5,75% (*)	3,96 (*)	11,72% (*)	5,39% (*)

(*) statistically significant threshold is 1% for a range of events ranging from –2j to + 2j
(**) the statistically significant threshold is 5% for a range of events ranging from –2j to + 2j
Source: Fuller, K., Netter, J., Stegemoller, M., 2002

When the target company is listed, the profitability of the transaction for the buyer decreases significantly depending on the relative size of the target. Thus, the larger the target size, the lower the profitability of the operation for the buyer's shareholders. It should be noted that if the target is not listed, the results obtained are reversed, in this case the operation is all the more profitable the more important the relative size of the target.

Possible listing of the target

The results of table no. 6 leads us to ask ourselves about the importance of the "target listing" factor on the profitability of mergers and acquisitions. Table no. 7. show the results obtained on the whole sample, regardless of the relative size of the target. The results obtained confirm the importance of this factor. Transactions on quoted targets are on average "value destroyers" for the buyer's shareholders while transactions involving an unlisted target company create average value.

Table no. 6 Distribution of the buyer's abnormal returns by type of target

	Average abnormal returns	Repartiția rezultatelor în funcție de modul de finanțare a operațiunii		
		Cash payment	Payment in shares	Mixed payment
The whole sample	1,77 % (*)	1,70 %(*)	1,25 % (*)	2,20 % (*)
Targets = listed companies	-1 % (**)	0,34 %	-1,86 % (**)	-1,1 %
Targets = listed companies	2,08 %(**)	1,62 % (*)	2,43 % (*)	2,48 % (*)
Targets = group branches	2,75 % (*)	2,56 % (*)	3,23 %	3,33 % (*)

(*) statistically significant threshold is 1% for a range of events ranging from –2j to + 2j
(**) the statistically significant threshold is 5% for a range of events ranging from –2j to + 2j
Source: Fuller, K., Netter, J., Stegemoller, M., 2002

The results obtained by Fuller, Netter and Stegemoller are even more significant when the "financing mode" factor is reintroduced. The operations performed in shares on target companies not listed on the Stock Exchange being the most value-creating operations. Conversely, transactions involving large, publicly traded and publicly traded targets are among the most "value destroyers". The operations involving relatively large target companies not listed and remunerated in shares proved to be the most profitable in the sample studied. The distribution of value at the end of external growth operations is a central issue. It concerns not only the shareholders of the buyer and the target but also the other parties directly interested in the business, namely managers, creditors, employees and social groups as a whole. If, overall, at the time of the announcement of the operation, a phenomenon of value creation is found, it can be noticed that its distribution is not uniform. Almost all of the value creation is earned by the target shareholders, while the shareholders of the purchasing company record abnormal rates of return close to 0% and even slightly negative (see table no. 7).

Table no. 7 Average abnormal rates of return on the US market

	1973-1979	1980-1989	1989-1999
Target	16 % *	16 % *	15,9 % *
Buyer	-0,3 %	-0,4 %	-1,0 %
Target + Buyer	1,5%	2,6 % *	1,4 % *

** statistically significant threshold is 1%*
Source: Andrade, G., Mitchell, M., Stafford, E., 2001

This result is confirmed by almost all specialized studies. If the research of the existing statistical results is deepened, it is observed that the shareholders of the purchasing enterprise end up obtaining, on average, a part of the value in case of acquisitions. In compensation, in case of mergers or acquisitions by exchange of shares, the value creation achieved during the operation tends to get rid of them almost entirely (table no. 8).

Table no. 8 Average abnormal rates of return on the US market

	Acquisitions	Mergers
Target	30 %	20%
Buyer	4 %	0 %

Source: Jensen, M., Ruback, R., 1983

Considering the personal motivations of leaders

The importance of considering leaders' motivations in the analysis of merger-acquisition performance was emphasized by the authors Morck, Schleifer and Vishny who sought to determine whether these managerial motivations can explain the observed abnormal negative returns. The results obtained on a sample of 327 operations show that managerial motivations are strongly associated with the existence of abnormal negative returns. Also, these authors show that the managers who have the lowest performance are also those whose acquisitions generate the least performing results.

Table no. 9 The influence of the analyzed factors on the created value

Factors	Ways	Relative impact on value (*)
Ways to merge	Merger	↓
	Acquisition	↑
Degree of proximity between the activities of the buyer and those of the target	Strong	↑
	Low	↓
How to finance the operation	Redemption of shares	↑
	liquidity	↓
The nature of the buyer	*Glamor firm (strong development)*	↓
	Value firm (strong profitability)	↑
Target listing	Unlisted targets	↑
	Rated targets	↓
Relative target size	Important to the buyer	↓
	Low compared to that of the buyer	↑

(*) The meaning of the symbols used is as follows:
↑ on average an operation performed in this way creates more value than the average of the observed operations.
↓ on average an operation performed in this way creates less value than the average of the observed operations.
Source: Datta, D.K., Pinches, G.E., Narayanan, K., 2001

Mergers and acquisitions have seen significant development in recent years and have become inevitable maneuvers in the strategies of large groups or smaller companies. The results obtained are, however, in many situations disappointing. The low value creation found is more beneficial to the shareholders of the target company than to those of the companies initiating the operations. The observed results differ greatly depending on the fields of activity, the type of operation and other factors. This variation is summarized in table no. 9.

5. Conclusions

Although the phenomenon of mergers and acquisitions has been studied for over 30 years, the failure rate is still high. What would be the explanation?

In our view, three possible reasons can be put forward to explain this lack of performance improvement over the years of the companies involved in the merger process, namely:

• The managers of the entities resort in many situations to mergers and acquisitions for other reasons than those related to value creation;

• Lack of collaboration between academic researchers and practitioners involved in mergers and acquisitions and, implicitly, insufficient capitalization of research results in practice;

• Mergers and acquisitions research does not address all aspects of these types of operations.

The conclusions from the study are based on an analysis of top research (the analyzed articles have an impact factor H> 10). If the analysis were extended to studies with a lower impact factor, we will probably reach different conclusions.

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The Independence of Banks Internal Auditors from Banks' Executives

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Abstract

Are internal auditors independent of banks' executives? In the reality, what happens to the activity of auditors is described as "isolated activities" or at least "unobservable" for the rest of the organization except bank executives. Banks' internal auditors operate based on a legal framework that is always improving, but in the meantime, the concern of their independence continues to be present evidenced even through interviews conducted with them for this paper. Internal Auditors have weakened their independence from Banks' Executives because of being under pressure of keeping their job position. The point is that threats to independence are indirect and difficult to identify and measure. Subsequently, the control of the movement and autonomy of internal auditors can't be founded uniquely on consistency with legitimate and administrative acts. This paper infers that autonomy in the dynamic of inward examiners ensure the monetary soundness of banks and thus their customers and different partners. In the end, there are some conclusions and recommendations for enhancing the independence of internal auditors.

Key words: internal auditor, bank, independence, regulation
J.E.L. classification: A10, D70, D82, H11

1. Introduction

Taking into account the work of the Internal Auditor based on International Accounting Standards (IAS-ISA) 610, internal audit is defined as: "An assessed activity located within an entity in the form of service to the entity. Its functioning includes, among others, the examination, evaluation and monitoring of the adequacy and effectiveness of the accounting system and internal control". Internal auditors in banks, who are liable for inspecting also the operations and executive management decisions of the bank in light of a legitimate concern for the shareholders and other stakeholders must play out their obligation with high expertise and individual moral principles. The two basic audit concepts that indicate the volume of work that auditors do are Risk and Materiality, but both of them should go together with Independency of a professional internal auditor from bank's executives. We will focus on this relation on a commercial bank in Albania. The organizational aspects of risk are very broad, but risk from an audit perspective is described by International Auditing Standard ISA (400) - Risk Assessment and Internal Control define audit risk as to the risk that auditors give an inappropriate opinion.

While, Materiality is defined in International Auditing Standard SNA 320 - Audit Materiality. It states that: "Information is material if its absence or anomaly affects the economic decisions of users taken based on financial statements." And finally, according to CIPFA in the guide "Standards of professional practice on ethics" the objectives of the professional auditors by their very nature must meet three basic needs: Credibility - of information and information systems; "Quality of services - they need to ensure that all services provided by CIPFA members are delivered to high standards"; Confidentiality - service users by members should feel confident that there is a framework for

professional ethics and technical standards that guide the provision of these services and that cannot be compromised. The CIPFA guideline sets out six fundamental principles: Integrity, a member must be trustworthy and honest in the performance of professional service; Objectivity, A member must be fair and objective in his or her conduct; Competence and Care, a member during the realization of the professional service must be competent to provide these services; Confidentiality, A member must respect confidentiality; Proper Action (Realization), a member must act in the same way while maintaining the good reputation of the Institute and curb any action which may harm the Institute or itself; Technical and Professional Standards, a member must perform services within the relevant technical and professional standards. The guide also sets out some other detailed principles that apply, such as Corporate Governance; Conflicts of interest; Hospitality and Gifts.
Mr. Stefan Ingves, Chairman of the Basel Committee on Banking Supervision and Governor of Sveriges Riksbank, Sweden's national bank, noticed that "an internal audit function, independent from management and composed of competent auditors, is a key component of a bank's sound governance framework. The Committee's document lays out expectations that should help banks and their supervisors strengthen professional practices in this area" (BIS, 2012).

2. Literature review

The purpose of internal controls is to ensure that: All transactions and information that should have been recorded are recorded; Errors or irregularities in information processing will be highlighted; Assets and liabilities that are recorded in the accounting system exist and are recorded with the correct amounts. In this way, notwithstanding the obligation to keep up legitimate bookkeeping records, the executives are likewise answerable for the adequacy of the internal audit framework. "The minimum obligation of banks is to comply with all laws and regulations that are commonly tailored to each country to ensure the sustainability of operations and to increase the bank's trust" (Ribaj and Illollari, 2019).

The nature and extent of internal audit controls vary from bank to bank and from department to department within the same bank. Among other things, internal audit controls will depend on several other factors, such as Nature, size and volume of transactions; The degree of control that the management can exercise itself; Geographical spread of the bank; The expense of working controls versus the advantages expected of them. A significant element will be the size of the bank. A small bank with a large shareholder involvement as bank executives involved in day-to-day operations is unlikely to need formal internal controls like those of a large bank in which shareholders do not participate in operations. of the bank.

Internal auditors are responsible only to the bank's governing body (not executives) and their targets change as per the board necessities. Internal audit should generally look for the possibility of such abuses and should seek to identify serious deficiencies in internal control that may allow these events to occur. An internal auditor who discovers evidence or suspects misconduct should report the evidence found or reasonable doubt to the appropriate management level. Management has the obligation to figure out what further advances should be taken. Internal audit has to distinguish the control targets inside every framework, to analyze these controls and, using tests, to guarantee that they work and are satisfactory. When conducting these examinations, the internal auditor should be vigilant about potential misconduct, but it is not his responsibility to identify all fraud and irregularities within a system; and also, auditors are not expected to provide such assurance or assurance to management. However, the tests performed by internal auditors should be designed in such a way that they ensure, as far as possible, the detection of any underlying irregularities and those that occur consistently. Banks Board of Directors have the essential obligation regarding guaranteeing that adequate controls are set up to forestall or distinguish misrepresentation and defilement; while Internal Auditors are responsible to the executives for a few duties to advice them in their job of forestalling and recognizing extortion and debasement. "The Audit process is made responsible for "collecting and interpreting reports of selected business facts" enabling executives to keep track of significant business developments, activities and outcomes from diverse and voluminous transactions" (Cinaj, Meçe, Ribaj and Kadrimi, 2020).

Unlike many goods, an audit is not a "good" that can be noticed in advance. An audit is referred to as the 'good experience' (Craswell & Francis 1999). This means it is a 'good', the qualities of which cannot be respected before the purchase. Essential qualities are often not foreseen until the moment it is best experienced. This makes auditing choice decisions more difficult than in many other commodity markets. Furthermore, even after the audit has been taken and experienced, it is not always possible to observe all the relevant qualities of an audit. It would be rare for anyone other than those involved in more detail in the audit to be able to observe key audit features. Even those close to the audit (e.g., those involved in the financial function or audit committee) are more likely to have an opportunity to observe aspects of competence. Most of what happens are unobservable by anyone other than those involved in the process. In a 2003 Houghton and Trotman review, this process was described as a 'secret audit business'.

Some argue that the best way to move forward in terms of audit quality (including auditor capability and independence) is to expand legislation and/or market regulations for audit services (e.g., Ramsay 2001). Internal Audit is an independent activity that provides an objective assurance and provides management advice designed to add value and improve the operation of the public entity (Listed Company). Internal audit encourages the public body to accomplish its goals, through a restrained and methodical movement, to evaluate and improve the adequacy of corporate governance.

A professional internal auditor should not only be familiar with the definition but should also be able to explain it to other stakeholders, even those who are not internal auditors. This explanation can also be used to overcome the misconception that internal auditors are the "police of the organization". "The level and quality of financial inclusion has a significant impact on opportunities for further progress that will support and facilitate a greater degree of stability of the financial stability and sustainable growth of the Albanian economy" (Ribaj, Meçe, Çinaj, and Kadrimi, 2020). The interests of various stakeholders, such as shareholders, customers, and employees, do not necessarily match. Bankers ethical behaviour is estimated to be at the forefront of ethical banking, which means that an institution offers and facilitates easy access to transparent information for customers and the public (Ribaj, Ilollari, Scalera, 2019).

3. Research methodology

In addition to the literature analysis for this paper, we analyzed the regulatory framework approach with EU Directives and BCBS principles. To conduct the application analysis in the Albanian reality we rely on a survey conducted with internal auditors of banks. The data obtained refer to data valid for the reality of internal audit in the banking system in Albania. The identity of the interviewees remains discreet about maintaining their privacy. Responded are 20 internal auditors in Albanian banks. The time to complete the questionnaire and the interview was on average 20 minutes. Open-ended, closed-ended and alternative questions were applied. They are built in such a form and order to obtain professional opinions regarding the independence of banks' internal audit from the bank management (CEO and executive management) and their transparency towards bank stakeholders.

4. Findings

4.1. Analyses for compliance of banks internal audit with EU Directives and BCBS

The Directive 2006/43/EC "On statutory audits of annual accounts and consolidated accounts", distributed by the European Commission in 2006, set assessment panels on the way to turning into a vital component of the corporate administration system of all EU Member States. The part of the control board, as needed by the Directive, was extensively predictable with that set out in some since quite a while ago settled corporate administration codes, to: … screen the viability of the organization's internal audit and danger the executives' frameworks; screen the adequacy of the organization's inside examination work; and so forth. (European Commission, 2006)

According to the 8th Company Law Directive of the European Union, Article 41 appoints an obligation for checking the viability of danger the executives and control frameworks by every "public-interest entity", which will have an audit advisory group also. The definition of "public interest entity" varies across the EU, but generally, one of them is considered the activity of banks.

It should be noticed that Albania, an EU competitor nation, is moving toward the EU directives and Basel principals using enactment and administrative system. Identified with the bank's internal control system, its structure and obligations, Albania has taken occasionally the method of obliging the prerequisites of EU orders and Basel standards inside the law no. 9662, dated 18.12.2006. "On Banks on the Republic of Albania", amended; regulation no. 63 "On core management principles of banks and branches of foreign banks and criteria on the approval of their administrators", dated 14.11.2012 and lately the new regulation no. 67, dated on 02.09.2015 "On Internal Control System" (Bank of Albania, 2006). This last one has given the requirements for setting up an effective internal control system and supporting arrangements by the three lines of defence model; a strong internal control system, including independent and effective internal audit functions, as part of sound corporate governance; the findings of internal audit to be followed and bank's management to take appropriate and timely corrective action in response to internal control weaknesses; the internal audit to provide vital assurance to bank's board of directors and supervisors; etc.

Article 37, point 2 of "Law on Banks" the bank's board of directors has the ultimate responsibility for ensuring that executive management/bank's directorate/bank's senior management establishes and maintains an adequate, effective and efficient internal control system, supporting arrangements by the three lines of defence model, and, accordingly, the board should support the internal audit unit in discharging its duties effectively (Bank of Albania, 2006). In addition to article, 45 and article 46 of "Law on Banks", the internal control system and internal audit unit should have independence, objectivity, professional competence and care in accordance with best practices and international standards of internal control (Bank of Albania, 2006). In addition to article 38, point 3 of "Law on Banks", the audit committee should: oversee the bank's internal audit system; monitor the effectiveness of the internal audit unit; ensure that the internal audit unit carries out its responsibilities independently and based on internal control standards; ensure that the bank's executive management has established and maintains an adequate and effective first and second line of defence; may propose the appointment or dismissal of the employees and head of internal audit unit; ensure regular open dialogue between the external/statutory auditor, bank's executive management, supervisory authority and internal audit.

Each bank should have a permanent internal audit function that must be independent of the audited activities, which requires the internal audit function to have sufficient standing and authority within the bank, thereby enabling internal auditors to carry out their assignments with objectivity. Internal audit must have adequate resources available, supporting both efficient and effective audit planning and management. The internal audit function should be accountable to the board of directors, on all matters related to the performance of its mandate as described in the internal audit regulatory framework, which articulates the purpose as well, standing and authority of the internal audit function within the bank in a manner that promotes an effective internal audit function.

4.2. Implemented independence of internal auditors of banks in Albania

Over time, many of the changes implemented in the regulatory framework have increased the quality of internal audit. However, no matter how well the audit is implemented and how well the audit regulation is implemented, bank failures continue to occur. This is seen by some as a sign that the audit process is not capable of providing a product that has value for the financial information market. In recent years, this perception of the lack of "distribution" of the audit product has been described as an 'expectations gap'. It is reasonable to conclude that, at least in part, what is expected of some market participants is not achievable.

The independence and objectivity of internal auditors are the first to be mentioned in the definition to emphasize their importance. Independence does not simply mean that the internal auditor is independent in the structure of the public entity, but that he/she has immunity from the power exercised by various actors and carries out activities in the interest of the organization. An objective internal auditor bases his judgment and works on factual and impartial information. Personal interest

or perspective on different things or people should not affect the work of internal auditors under any circumstances. The analysis of the main results of the questionnaires and interviews of 20 internal auditors are as follows:

1. About 39% of respondents state that they as internal auditors were free to perform their duties without interference from individuals outside the audit department, while 38.3% did not agree. While the rest hesitated to answer this question.

2. The majority of respondents (67%) state that they feel free to include their materials in the draft reports they draft. While following this question, they state that the final report had changed from the interventions made by the head of the internal audit department, mainly affecting the reduction of findings and their materiality by arguing that they were addressed.

3. The majority of respondents (82%) state that they as internal auditors had never made a presentation of their audit reports to their banks' boards of directors. The audit reports were delivered to the bank's CEO (or Vice CEO) and usually they discussed findings with the Head of Internal Audit Department. Following the discussion on this question, they state that the board of directors could ask the head of the internal audit department to report to them, if they want.

4. Almost all respondents (91%) stated that they had not gone through a recruitment process through the bank's board of directors, but the same process was followed as for other positions in the bank. Record interviews with the bank's Human Resources Department as well as with the CEO or CFO.

5. About 79% of respondents state that they do not audit the activities for which they were responsible for their functioning before being promoted to this position.

5. Conclusions

1. The challenges arising from the economic situation, and changes in regulatory framework, increase the pressure for banks to adopt a robust governance framework keeping an effective communication between structures.

2. Risk management, internal control and audit functions provide reliable information channels for the bank's board of directors to monitor the effectiveness of risk management and internal control system. With regard to risk management, the bank's board and/or the audit committee needs to receive, at least yearly, an evaluation of the bank's risks and its internal control system. They need to have appropriate information to know how the business model is impacted by major risks, and how value generation could be enhanced by opportunities or reduced by vulnerabilities of external environment or particular risks inherent to the activity of the bank and what strategies to be chosen for achieving the bank's mission.

3. Independence of the audit is vital for the bank life. But internal auditors are not truly independent because they are employed by the bank executives.

4. The final audit reports are finalized and presented to bank executives (maybe to Audit Committee as well) only by Head of Audit Departments, and not by internal auditors. Head of Audit Departments have the power to decide for final and material findings identified by internal auditors.

6. Recommendations

1. The bank's culture, code of conduct, human resources policies and performance reward systems are critical components of the internal control system. Critical for this system to work is the protection of the people who "blow the whistle".

2. Internal auditors of banks should be provided with clear and consistent incentives or penalties to promote their independence. The monitoring and supervision of Internal Auditors Independence should be 360 degrees, more qualitative than quantitative focusing on essential issues (risk-based) for the independence of the auditors. The supervisors might be appointed by Central Bank or IEKA as audit experts who have not had a business relationship in the last 5 years and who are legally committed not to have in at least the next 3 years with this bank and the supervised auditors. The audit expert should have a broad scope of the inspection to examine the full corporate governance of the bank, its organizational culture and the ethical behaviour of the internal auditor. The assessment

report should be distributed on the website of the Central Bank, IEKA, just as on the website of the bank itself.

3. The bank's audit committee has to evaluate the reports from these multiple sources and advice the bank's board of directors to determine the measures to be taken for problems identified for independency of internal auditors. Internal audit function should have the right to attend or observe executive committee meetings and to have timely access to relevant management information and committee materials. Internal audit function should ensure that its internal audit reports are provided to the board of directors or the audit committee without banks executives filtering.

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Comparative Aspect of Cost Management and Accounting Cost

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Abstract

The article shows a comparative analysis between cost management and accounting cost. To begin with, tools for evaluating the performance of an entity are studied, as well as the methods of improving the accounting systems used in the production system, taking into account resources. The study includes a detailed analysis of the management cost and a detailed analysis of the accounting cost. The purpose of the article is to highlight the strengths and weaknesses of managerial costs as well as accounting costs. Finally, the authors' conclusions are analyzed.

Key words: cost, performance, management, accounting.
J.E.L. clasification: M41

1. Introduction

The article presents a detailed study on managerial accounting, performance evaluation methods, as well as a comparative analysis between cost management and accounting cost. For the beginning, the definition of managerial accounting according to the specialized literature is described. Many researchers provide us with essential data about managerial accounting, which studies the internal activity as well as the external activity on the entities. In order to carry out these activities, we need a detailed study on the resources that provide us with information from the financial accounting, both current and future, necessary in making the essential decisions in the smooth running of the entities' activity.

The article also examines the tools for evaluating the performance of an entity, as well as the methods of improving the accounting systems used in the production system, taking into account resources. The study includes a detailed analysis of the management cost and a detailed analysis of the accounting cost. The purpose of the article is to highlight the strengths and weaknesses of managerial costs as well as accounting costs. Finally, the authors' conclusions are analyzed.

2. Literature review

In the specialized literature are reached different forms of managerial accounting. Managerial accounting uses both external resources that require entity-level information provided by financial accounting and internal resources that include cost accounting information in order to provide the data needed for planning, control and decision making. It should be noted that the information provided by management accounting must be both present and future information used in the management of the entities.(Contabilitateafin.ro/ 2017)

Managerial accounting can be defined as a set of procedures for identifying, quantifying, collecting, analyzing and reporting accounting information on operations, activities, processes, works and services performed by economic entities in order to substantiate the decisions taken. (Managerial Accounting, 2013-2014)

Managerial accounting "is a broader concept involving knowledge and professional skill in training and especially in presenting the information necessary for management at different hierarchical levels. The source of such information is financial accounting and management cost accounting". (Caraiani C., Dumitrana M. – Accounting and management control, 2004.)

Natacha Dabija in her work "Managerial Accounting" defines managerial accounting as a "distinct field within the accounting records, having as main objective the measurement, collection, processing and transmission of information", necessary in the preparation of internal reports.

The calculation of costs is an important part of managerial accounting, based on determining the expected costs, the time of integration in production accounting, execution of works, determining the actual cost on each activity center.

The literature assigns managerial accounting to different forms, namely: management accounting or analytical accounting. Management accounting is different from managerial accounting by the purpose of accounting information, based on the decision-making act of the entities. Analytical accounting is an integral part of managerial accounting by allocating the structure of active financial statements, debts, equity, income, expenses.

3. Research methodology

Accounting companies that apply accounting systems from the production process to the finished product, face major problems with cost accounts, because the continuous improvement of technology, moving equipment, waste disposal is done during working hours and this prevents accurate determination. of cost. This process is performed every time an improvement of the manufacturing technology is made. A category of accountants places more importance on determining cost management rather than cost accounting.

Experienced managers and accountants can evaluate this, but wonder why the cost of production needs to be known, most likely it will be considered an individual product or service used to determine the price, reduce costs and inventory value. It should be specified that the market is the one that sets the price and not the accountant. To reduce costs, it is necessary for any business to focus on reducing costs for the whole company and not for individual products. Finally, every company tries to use its resources profitably to offer customers products or services that are competitive in terms of cost, quality and delivery. In his book Kaizen Masaaki Imai tells us that "The ultimate goal of a company is to make a profit, assuming that this is self-evident, the next on the company's goals should be quality, cost and programming (quantity and norm)" . Without achieving these objectives, the competition left behind by competition due to lower quality will face erroneous profits, which will lead to delayed delivery of products. Therefore, we should consider all other management costs and operate according to the three mentioned objectives.

4. Results. A performance appraisal tool - Balanced Scorecard

Balanced Scorecard communicates an organization's strategy through a series of causal links. The Balanced Scorecard is particularly powerful because it relies on both financial and non-financial measures to communicate to managers how specific business processes lead to results. Using both types of measures can give a company a more complete picture of its progress towards meeting its strategies and objectives.

Balanced Scorecard measurement has several common indicators that companies use to measure performance across each of the four balanced score dimensions.

Evaluation of financial performance

Company managers frequently evaluate the financial performance of their enterprises according to three standards: the actual past performance of their enterprise, the budgeted performance of the enterprise, and the performance of the enterprise customer group. Two of the most common financial measures used to evaluate performance are sales and profitability.

Table no. 1: Balanced Scorecard measurement

Size	**Examples of measures**
Financial results	Sales and profitability Cash flow from operations Dividends paid Debt levels
Customer satisfaction	Market share The average value of the transaction Satisfaction assessment Number of new customers Number of products returned
Production process	Percentage of deliveries on time Marketing time for new products. Number of defective products Number of accidents Production stagnation time (production downtime)
Learning and development	The value of employees Employee satisfaction assessment Number of training courses completed Employee awards

Source: Developed by the author based on data provided by SC Selprod SRL

Evaluation of non-financial performance

A performance measurement system must provide managers with a well-functioning, favorable feedback and value of the entities in the operating process. It enables managers to make decisions about the company's operations and requires adjustments that help the company thrive, taking into account the company's value chain processes. Financial performance measures that are derived from structured financial statements and standards, non-financial measures are often tailored to a company's single operations. The performance measures used by a company may not be appropriate because the strategic objectives are different. Therefore, managers study the company's objectives and the production process to adopt non-financial measures that will help them in evaluating the company's objectives. To be useful in strategic planning and evaluation, performance measurement systems must report an operating time of at least five dimensions:

1. Input information. Examples: raw material usage reports and product cost reports;
2. Information about the process that creates customer value. Examples: entity turnover, employee training and production costs;
3. Information on efficiency or productivity. An example is the client's account processing time;
4. Information about results. Examples: customer sales data, sales reports and market share;
5. Information on the evaluation of the quality of products and services. Examples: number of defects and market share data.

Cost Management. In traditional data collection systems, the cost elements of a product can be defined as the sum of the material cost, the allocated processing or conversion cost, and the allocated cost of the product price on the materials invoice and the company's records for purchase prices. However, non-conformities considered as waste or waste should not be added and should be eliminated, the degree of processing is created. In fact, you may get to a point where direct costs can be allocated because the product is more than the occupancy costs allocated to the product. Many companies have found that ABC encourages larger batches to move the cost to more units, thus "reducing the cost per unit in low-priced products."

Accounting Cost. The determination of costs depends on the chosen method. The cost is not absolute, but only an estimate. Management understands the profitability of a portfolio of own products. Apparently low-margin products, which complete the line, will become acceptable if they offer a competitive advantage to the customer's eyes, and the whole product line generates an acceptable profit. The traditional accountant tells us that the detailed costs of the product must be

maintained, and the argument is that numbers are necessary to satisfy auditors who want to know the values of the inventory, but look at the standard "clean petite" that auditors give. These standards require that we plan and perform an audit to obtain reasonable assurance. An audit examines on a test basis, evidence that supports financial documents and information in the financial statements. An audit also takes into account the accounting principles used and significant made by management, as well as the assessment of the general presentation of the financial statements.

The financial statements referred to are presented correctly. In our opinion, valuations are based on estimates, including inventory valuation, and that the financial statements are accurate in all material respects, providing recognition of the principle of materiality. If a company restores its inventory two or three times, which is not unusual for a company, it is a significant item in the balance sheet and a small valuation error can have a significant effect on reported revenue. Therefore, the audit devotes a considerable amount of time testing to the methods used to allocate costs to inventory, in addition to which are net realizable value tests. On the other hand, it is not uncommon for a good company in time to turn its work into finished products. In other words, these companies would only have one or two weeks of inventory. It is relatively easy to calculate, at macro level, one or two weeks of work and overpressure and to capitalize this amount by recording in the accounting journal by the end of each month. The argument that unity is needed to value inventory is valid in a poor environmental experience.

5. Conclusions

This article includes the conceptual dimensions of managerial accounting which describes general notions of managerial accounting, information on managerial decisions made at the entity level, notions of the information system needed to make important decisions and the fundamentals of business strategy and strategic planning. Managerial accounting is necessary to meet the interests of customers, owners and other stakeholders in the business. This article includes the description of a performance appraisal tool implemented in entities, as considered a method of managerial accounting and an analysis of managerial costs as well as the accounting cost that is of interest to each entity.

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Aspects Regarding the Profitability of the Enterprise With the Help of the Data Provided by the Activity Reports

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Abstract

The purpose of this paper is to present the connection between the pro-forma situations and the analysis of the activity report with the data provided by SC Selprod SRL. Pro forma cash flow statements are valuable information needed to determine the company's cash, one of its most critical assets. The analysis of the activity report includes a study on the industry producing electrical and electronic products from our country. This article aims at the potential profitability of the company, based on managerial information.

Key words: financial statements, reports, evaluation, performance, pro-forma, enterprise.
J.E.L. Classification: M41

1. Introduction

This article includes an analysis of the financial statements and an assessment of the entity's performance. They provide us with data on the pro-forma financial statements and analysis of the activity report, at enterprise level. The theoretical part contains information on pro forma statements that reflect the projections of financial statements required of managers for the value of the transaction and highlight future revenues, investment activities, financing commitments. The practical part is the main statements used by the stakeholders needed to assess performance from an enterprise perspective.

2. Theoretical background

Pro-Forma financial projects reflect projections of financial statements that help managers change the value of the transaction, projections called pro forma financial statements. These are based on assumptions about future revenues, investment activities, financing commitments and other operating emissions assumptions, which are generally presented in a strategy or business of start-ups.

The financial statements prepared by an enterprise are made in several sections: purchases, production, sales, distribution costs, marketing costs, cash flow. (Tanase AE, 2015 oct 7 (6))

From the preparation of the financial statements - the balance sheet and the profit and loss account, companies with production activity usually provide published statistics when preparing projections of financial statements about future operations. The balance sheet shows the assets, liabilities and equity of an enterprise at a given time, usually at the end of the quarter or year. The profit and loss account shows the income and expenses of the enterprise realized over a period of time, namely a year or a quarter. (https://www.academia.edu/26021738/ANALYSIS OF FINANCIAL SITUATIONS)

3. Research methodology

Pro forma financial statements use electronic files or computerized mathematical models that facilitate the use of web analytics at no additional cost to the Internet. However, managers apply their ideas to turn this data into information that can be used in the smooth running of the business.

Managers have two options for making this projection: the first is a sales forecast and can work on net sales revenue, or they can choose a profit figure and calculate the level of sales needed to reach a desired level of net income. In any of the approaches, managers must estimate the expenses that will be incurred to make the revenue projections. The pro forma cash flow statement is particularly valuable in describing the sources and uses of the company's cash, one of the most critical assets held by an enterprise. All pro forma projections should be compared with previous operating reports or data from legitimate external sources to validate the adequacy of pro forma programming and underlying assumptions. It is also useful to evaluate these projections using the activity report analysis. (https://www.academia.edu / Activity report and statement of financial statement)

4. Activity report analysis

The activity report provides information on whether an enterprise has sufficient assets, either in cash or readily convertible to cash, to pay the maturity obligations as they fall.

Table no. 1 Activity report

Report	SC Selprod SRL	Industry
Current report	5,45	4,50
Quick report	4,80	2,80
Financial report	2,94	1,80
Debts to equity	0,53	16,00
Receivables turnover	13,43	8,93
Asset turnover	4,01	1,35
Margin did not profit	6,77	6,70%
Return on assets	17,01	10,10 %
Return on equity	27,22	20,20 %

Source: developed by the author based on data provided by SC Selprod SRL

Current report

The current ratio, sometimes called working capital, measures the company's ability to pay current liabilities from current assets. Financial analysts believe that a current report is a liquidity for a small business. In general, the higher the ratio, the stronger the financial position and liquidity. However, a very high current ratio may suggest inefficient use of the company if cash balances do not collect their receivables or are invested in inventory.

$$\frac{Totalcirculatingassets}{currentliabilities} = \frac{693136}{127013} = 5{,}45$$

In the case of SC Selprod SRL we notice a very strong current ratio determined by cash relations and debt balances. Their publicity also increases the value of the report. The unusual size draws attention to areas that may need improvement in this case, better use of cash balances. Alternatively, they may choose to keep the liquidity levers high that they fully support the seasonal cash requirements of their new business.

Quick report

The quick report, also called the income test report, is a more conscious measure of a company's liquidity because it eliminates the length and inventory of desired expenses. These eliminations are made because it is considered the least current liquid asset and also advance expenses such as rent, advertising and insurance can be easily converted into cash. In general, a fast 1: 1 ratio is considered satisfactory. A report suggests to the company current and future sales revenue to meet short-term debit.

$$\frac{totalcurrentassets - house \wedge bankaccounts}{currentdebts} = \frac{693136 - 72956}{127013} = 4{,}88$$

Loan rates

Several reports compare the amount of financing provided by homeowners with those creditors provided. These ratios are known as leverage ratios. They assess the extent to which managers rely on debt capital rather than stock to report financial and investment activity. Total equity includes all liabilities as if they were owners' capital (inventories and gains), so it is equal to total assets, the financial statements indicate that a firm relies on creditors to provide a small percentage of its financing , which generally suggests a higher risk of default than homeowners with higher personal investments (higher equity).

Financial leverage ratio

The financial leverage ratio reports the proportion of an entity's assets that owners control relative to the value of the owners' investment in the company. The "leverage" in financial leverage refers to the impact of using creditors' funds to run a business. Highly "leveraged" companies rely more on "external" debt or financing than on owner financing.

$$\frac{totalassets}{equity} = \frac{693136}{235654} = 2{,}94$$

The share of financial compensation is quite low, reflecting the recent start of business operations. As with many small service businesses, homeowners provide most of their initial start-up funds or financial capital. As the business matures and sets a strong performance record, creditors will become more and more willing to expand the company's funds to finance their operations. The industry average of 3.80 for this type of established activities presented above reflects this availability. SC Selprod SRL has a very low risk of non-payment at the end of its first fiscal year, because the low financial leverage ratio of 2.94 indicates that the owners now control almost all the company's assets.

Equity ratio

The debt / equity ratio is a leverage ratio that also expresses the relationship between the capital contributions of creditors and owners. The report simply compares what the company "owes" to creditors with what the owners have invested. The higher the debt ratio, the higher the risk of default, the less protected the creditors, the more the activity could fail. When the balance of the enterprise / equity exceeds 1.00, the interest of creditors is higher than that of the owners, which suggests that the business may be undercapitalized. Firms need to be careful to balance the relationship between debt and equity.

$$\frac{totaldebt}{totalequity} = \frac{127013}{235654} = 0{,}53$$

In this case, the debt / equity ratio is significantly lower than at the industry level of 16.00, again confirming the start-up nature of the company's operations.

Revenue collection figures

This report measures both the quality of receivables and the effectiveness of the company's collection and lending policies. A high debt reduction ratio is generally considered good because a company quickly turns customers' receivables into cash.

$$\frac{netsalesrevenue}{incomereceived} = \frac{591874}{34030} = 17{,}39$$

This report measures both the quality of receivables and the effectiveness of the company's collection and lending policies. A high debt reduction ratio is generally considered good because a company quickly turns customers' receivables into cash.

Turnover ratio

The turnover ratio measures the efficiency with which a company manages and sells its inventory. It can also be used to assess the liquidity of a company's inventory, given that SC Selprod SRL operates in a manufacturing industry that produces or sells specific inventory products, it would be expected that the inventory ratio would be an appropriate measure.

In fact, the balance sheet of SC Selprod SRL does not report at all any inventory held for resale. However, for the firm with retail inventory, the ratio is calculated with the cost of goods sold in the counter.

$$inventoryturnover = \frac{thecostsofthegoodssold}{inventory} = \frac{564546}{42030} = 13{,}43$$

The lack of such a report highlights an important point regarding the analysis of rates: they may not apply to all companies, business professionals must carefully analyze the company's operations to determine the adequacy of a particular report. Frequently, unusual or abnormal reports may indicate that a particular measure should not be used in an analysis.

Asset turnover ratio

The asset's turnover ratio is a value that generates sales and has not used all of its assets. In general, the firm will expand its business, which means that the slower and lower the investment in assets or sales, the lower the investment requires for lower asset asset ratios.

$$\frac{netincome}{totalcurrentassets} = \frac{591874}{147313} = 4{,}01$$

Asset turnover indicates how many lei were invested for every dollar invested in assets, an important value especially for expanding the business. In its first year, revenues increased by 4 $ for every leu invested in assets. This is higher than the industry average of 1.35 and may reflect the profitability ratio.

Evaluation, Profitability and Performance Reports

Three indicators are commonly used to assess how efficiently a firm is managed and how successful its operations are: the ratio of net profit margin, return on investment and return on equity.

The net profit margin ratio measures the ability to translate value from sales into profits after taking into account all income. A variable net profit margin varies from industry to fair valuation, managers need to consider the value of the company's assets, the ratios of decrease and loss of receivables and its total capitalization (public debt capital). However, one thing is indisputable:

$$\frac{netincome}{netsalesrevenue} = \frac{4010}{591874} = 6{,}77\%$$

SC Selprod SRL has a net profit of 6.77 percent lower than the industrial percentage of 7.6 percent. Managers take into account the percentage increase in the coming years.

Return on assets

Return on assets (ROA), sometimes referred to as return on investment and return on equity, are two ratios that measure the overall efficiency of the company in managing its assets and generating shareholder profitability.

Of course, higher results are better for each of the reports. Moreover, if the return on equity is excessively low, this suggests that owners' capital could be better used elsewhere. The return on assets or the investment ratio is often used to measure performance in the company's operating divisions.

$$\frac{Netincome}{totalassets} = \frac{4010}{235654} = 17{,}01\%$$

For SC Selprod SRL ROA is more than double the industrial average of 10.10 percent, which indicates that the entity generates almost twice as much profit from each leu of the asset that generates competition. This result is consistent with the higher asset ratio of the entity and the lower profit margin ratio, apparently confirming the dependence on rents (higher expenses than the competition), rather than on the equipment purchased (total assets lower than the competition in industry) in the first year of operations, change of equity.

Return on equity (ROE)

Return on equity (ROE) shows the return on each leu invested by owners or shareholders. It measures the company's ability to manage assets to use net income. Because investors are interested in how much their investment will produce, it serves as a universal value that can be used to value all business.

$$\frac{Netincomet}{totalequity} = \frac{4010}{147313} = 27{,}22\%$$

For SC Selprod SRL ROE exceeds the industry one by 4.60 percent, still using the average performance for the entity as a summary of financial measures.

Summary of financial measures

Now that we can appreciate how report analysis is used to evaluate liquidity, leverage, operations, and performance, we'll illustrate how managers can easily evaluate a company's business strategy by exploring the relationships between multiple reports. -I examined. The DuPont system can be used to assess how well an entity has executed its management strategy, as measured by the overall return generated by its owners. DuPont, a well-known global manufacturer of chemicals, plastics and other products, has used this technique to evaluate its performance since 1919. This tool provides managers with information about how the company's decisions and activities, as measured by multiple financial reports, interacts to produce a return on shareholders (i.e. ROE). This analytical tool is particularly powerful because it allows the division of the company's overall strategy into only three key reports that directly affect a manager's area of responsibility: profit margin, use of assets (turnover) and financial effect. This is illustrated in the table below.

Table no. 2 Use of the DuPont system

Report	SC Selprod SRL	Industry
Return on equity	27,22	20,20 %
Net profit margin	6,77	6,70%
Asset turnover	4,01	1,35
Financial report	2,94	1,80

Source: Developed by the author based on data provided by SC Selprod SRL

Using this system, managers can evaluate changes in the company's performance (measured by resuming equity) and determine whether they reflect impairment of improvements in competing business processes. The power of this tool lies in its ability to focus on specific areas of the company that affect performance. Table no. 2 focuses on the ratios we calculated for SC Selprod SRL that are important for this technique.

Table no. 2 reveals that SC Selprod SRL outperformed its competitors in the industry during the year of operation. The DuPont system highlights those factors that determined the positive performance: the net profit margin, the turnover of the assets and the financial situation of the ROE. Although it has evolved slightly in its industry, both in terms of net profit and financial situation, the high turnover of the assets of SC Selprod SRL (almost three times higher than the industry average) aims for the ROE to aim at a over-industry yield of 24.80%. In the slow growth rate of assets and net profit margin interact to produce an ROA for the company (20.88 percent) which is above double the industry average. Because these reports are observations of the company's condition at a given time, by examining trends in these reports over time, managers can detect changes that could justify the changes and determine future actions.

Other financial performance measures

In addition to the fundamental reports we have analyzed so far in this chapter, companies use measures that include a share price element to assess progress in achieving their objectives. Most companies use net income divided by the number of shares held by owners to assess performance. Many companies also use the price-to-earnings ratio (the share price divided by earnings per share). Others measure performance as the change in the market price of a company's shares over a period of time. Recently, some companies have adopted an economy value added tax (VAT) analysis to measure the value created by shareholders during the reporting period. A common way of describing VAT is that it represents a company's profits after deducting capital raising costs. Regardless of the extent, all these techniques have a single purpose: to expose the basic relationships hidden in the financial statements. (Barsky/Catanach, 2018)

5. Conclusions

This article examines the role of financial statements and the measurement and evaluation of an entity's operating performance. The main statements used by stakeholders to assess a company's historical and prospective performance are the balance sheet, income statement, statement of flows and statement of equity or equity. Because the technology does not have such financial information available on the market at low or no cost, professionals are no longer rewarded for simply preparing these reports. Managers should use their skills that use a ratio analysis to explain the company's operations in terms of liquidity, leverage, consumption or operations, and profitability. The DuPont financial analysis system was introduced as a powerful technique that focuses managers on business processes when evaluating company changes.

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The Characterization of the Taxation Process in Terms of Tax Culture, as an Element of Novelty

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Abstract

This research does not aim to achieve the optimal taxation, because this is theoretically plausible, but in practice, is an amalgam of principles, roles and objectives, which could not be achieved at the same time, so that the taxation process works in -an ideal way, without negative effects on the economic and social life of societies. Thus, the main purpose of this study is to study the characteristics that give taxation optimal elements, so that the fulfillment of as many of them can lead to a good tax system, in any economy, whether it is a developed or a developing economy. To achieve this goal, the research methodology is based on theoretical research of the opinions and visions held by theorists in the economic world. The research results are based on the fact that, although the principles and roles of taxation are interpreted differently over time, their essence is the same, and the development of a tax culture is a novelty, addressed in the literature in recent years.

Key words: optimal taxation, taxation principles, fiscal system, tax culture
J.E.L. classification: H20, H21, H30

1. Introduction

Over time, many characteristics and criteria have been addressed in the literature, which can give taxation the appellative of "optimal", "ideal" or "perfect" (Ungureanu et al 2017, Pițu et al, 2018; Vodă et al, 2020). In this paper, the aim is not to achieve the fiscal optimum, because this is theoretically plausible, but in practice, the elements and criteria of the optimum, studied by many authors, cannot be met at the same time, because tax systems are designed by the decisions factors, depending on the fiscal objectives with higher priority, and this means that the fulfillment of some principles will be chosen, to the detriment of others.

In the present research, in the first phase, the elements that give the taxation optimal characteristics and that help to build a good tax system were studied. Based on the principles of Adam Smith, we believe that the tax system must be built in such a way as to be fair, which means that the distribution of the tax burden must not be burdensome for different social groups of the population, to be transparent, inexpensive and simple to understand, both for taxpayers and for tax administrations, but also effective in the sense that fiscal policy, through taxation, must facilitate long-term economic and social development. In addition to the principles of taxation, the study of the roles played by the taxation process can provide considerable information in characterizing the tax system.

As a preliminary step in characterizing the tax system, it is important to address what elements give the characteristic of "optimal" to the tax system. The performance of the fiscal mechanism as well as of the fiscal apparatus depends very much on the successful implementation, in practice, of

the taxation principles. In a context where most states have to deal with declining revenues, rising expenditures and resulting tax constraints, rising revenues remain the most important function of taxes, serving as the primary means of financing public goods. Assuming that income levels need to be raised, there are a number of broad fiscal policy considerations that have guided the development of taxation systems over time. In economic practice, states and their tax systems are divided into developed and developing economies, and therefore, in the literature, *the principles and roles of taxation are approached, which even if they are interpreted differently, their essence is the same.*

2. Research methodology

Regarding the research methodology of this study, to achieve the main purpose of this research, namely the characterization of a good tax system, it was necessary to study the literature, to understand the concepts and opinions held by theorists, on the optimal elements of tax system. Thus, the approach of the objective through the prism of a qualitative research, aims to provide advantages in knowledge, within the specialized literature, from a theoretical point of view.

This study is divided into five sections, namely: the introductory part, which briefly presents the importance of this research; the methodological part; the theoretical section, in which the main principles and roles of the taxation process are presented, from the perspective of the visions held by the great economists and researchers, over the years; the fourth section, in which the main results obtained are presented, through the study of the specialized literature and the conferment of some own perceptions on the studied elements; and, the last section is represented by the part in which the main conclusions of the present study are presented.

3. Theoretical foundations regarding the principles and roles of taxation

The objective of this sub-point of the research is to address the elements that can give the tax system the optimal characteristics, and, to achieve this goal, we will start with the presentation of the established "tax canons", pronounced as maxims, by Adam Smith in 1776, in the work "The Wealth of Nations". They are the cornerstone in shaping the principles of taxation, on the basis of which many authors have made improvements, in order to give the state, the power to design at a higher level the tax system, both as a means of achieving public revenue and as a lever of influence, at the economic level.

Adam Smith's intention was to provide the necessary features to the tax system so that it meets the balance between the interest of the taxpayer and that of the tax authorities, which will directly lead to the general welfare of the nation. In Popescu's opinion (2019, pp. 13-18) the tax canons can be summarized as follows:

a) The maximum of tax justice (the principle of fiscal equity), which stated that the subjects of each state must participate in the coverage of government expenditures, depending on the possibilities, respectively directly proportional to the revenues obtained within the state.

This maxim reveals that the taxation *in fixed rates* is not efficient, because it does not take into account the size of the income held by the taxpayer, while the taxation *in progressive rates* respects the principle of equity, the subjects paying in relation to the income held.

b) The maximum of certainty (the principle of fiscal certainty) referred to the condition that the amount of taxes owed by taxpayers to be precise, not arbitrary.

This means that taxpayers need to be aware of each type of tax, and the legislative framework is intended to be clear and contain in advance all information regarding the size of the tax liability, the terms and methods of collection of taxes, and the situations when the tax authorities may apply sanctions, in case of non-compliance.

This maxim also refers to the feature of transparency of taxes, respectively taxpayers and control bodies must know of their existence, and this principle is often violated, because some taxes are invisible, being difficult to decipher, as in the case of excise duties, where the tax is introduced in the final consumer price. The choice to use and increase invisible taxes, which consumers do not notice, is often used by governments, when the size of tax revenues is not at the forecast level.

c) The maximum of convenience (the principle of convenience of tax collection), meant that each tax was levied at the time or in the most convenient way for taxpayers;

d) The maximum of minimizing costs and fiscal efficiency (the principle of fiscal efficiency), meant that the imposition of the lowest taxes and ensuring their collection with a minimum of expenses from the state, for the following four reasons:

- the collection of taxes requires a large number of officers, whose salaries will consume most of the income obtained from taxes;
- high taxes can affect people's industry, as they can diminish the financial resources held or destroy those branches of industry that provide jobs, which would mean paying more taxes and obtaining higher incomes by the state;
- the higher the tax, the greater the temptation to circumvent it, and the penalties should be proportionate to the illegality committed;
- the more frequent the unnecessary controls of the authorities, the higher the expenditure of the state, and, in this way, the taxes can be more burdensome for the people, than the benefits brought to the state, by collecting them.

Smith (2015) finds that the principle of fiscal efficiency, outlined by Adam Smith, can also be approached in terms of tax costs, which must be taken into account when designing the tax system, namely:

- operating costs of the fiscal apparatus, which need to be found at minimum levels;
- economic costs imposed by taxation, through its impact on the taxpayer's behavior, which means that it can affect its consumption and production decision;
- the costs of the activities within the fiscal administration, which are necessary to prevent evasion;
- compliance costs, borne by the taxpayers themselves in their contact with the tax system, respectively the payment of mandatory levies.

Next, the two overriding principles of taxation, namely tax efficiency and fairness, are presented in more detail, so as to understand that optimal taxation involves some trade-offs between the two, as the design of the taxation system needs to be appropriate to the economic situation, and the two principles must not be mutually exclusive.

A**. Fiscal efficiency** can mean many things, and in our case, in addition to the characteristics set out in Adam Smith's canons, we can also refer to the state's ability to undertake activities necessary *to build and develop a national fiscal culture,* both at the taxpayer level, as well as at the level of tax authorities. This can improve the state-citizen relationship through active participation, but also by increasing trust in society, and the decision to comply with the payment can directly bring payments in tax revenues.

B. **Fiscal equity**

A key issue, which stems from the promotion of the principle of equity in the tax system, is the equitable distribution of tax burdens among taxpayers. In this direction, over time, two theories have developed, namely: *the theory of benefits received*, according to which taxpayers who are in the same conditions and obtain the same benefits from public activity, it is necessary to have a similar tax treatment and *the theory of ability to pay*, according to which taxpayers will not pay according to the benefits received, but according to their ability to participate in taxes.

We believe that in designing the tax system it is necessary to take into account, in addition to the fundamental principles of taxation, the taxation methods which derive from the two theories stated, because managed together, are meant to bring improvements to the tax system. The literature talks about two types of equity, namely:

- horizontal equity, in which persons with the same characteristics have a similar tax treatment (fixed taxation method, in which the amount of tax is fixed, regardless of the value of the tax base);
- vertical equity, which involves the application of taxation directly proportional to income or wealth, respectively, the higher the income, the higher the taxes.

Gashenko et al (2019) consider that vertical equity brings new features to the taxation process, by classifying taxation methods into:

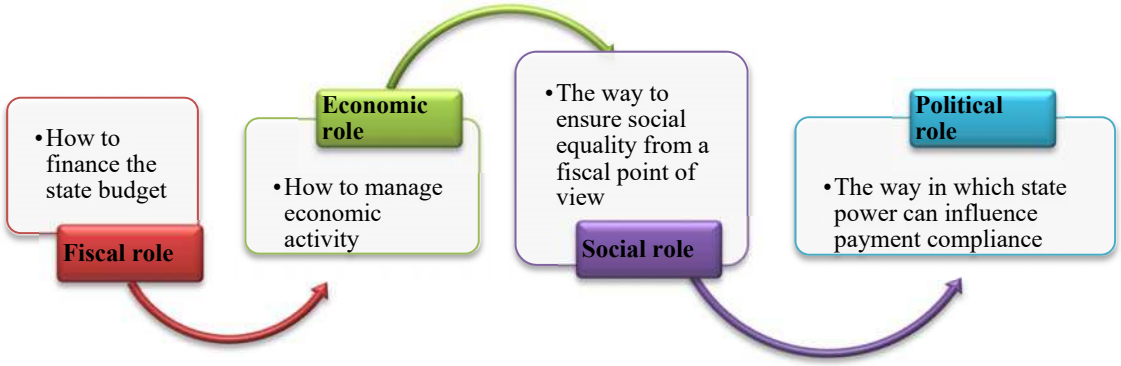
a. Regressive taxation, which involves a decrease in the tax rate with the increase of the tax base, so that those with low incomes pay a higher share of tax revenues than those with higher incomes. Almost any tax on necessities is regressive, because people with lower incomes end up consuming a larger share of their income.

b. Proportional or fixed taxation implies the same tax rate, regardless of the value of the tax base. A tax is proportional if its value increases with the value of the tax base and all taxpayers pay the same tax rate.
c. Progressive taxation implies the increase of the tax rate with the increase of the tax base. A progressive tax requires people with higher incomes to pay a higher share of their tax revenues.

It can thus be seen that, in addition to the principles of taxation, taxation methods provide options in choosing elements that give the tax system optimal elements. Thus, taxation methods are selected individually for each type of tax, depending on the particularities and priorities of the development of the social and economic system, but also according to the fiscal pressure, assessed by the extent and structure of tax revenues in the economy and correlated with taxpayers' incomes. However, there is a general agreement among economists that the tax system, in order to aim for perfection, should *be at least proportionate* so that it is about the same percentage of everyone's income, and there is a consensus that it should *be even moderately progressive*, taking a larger share of the income of richer households (Limberg, 2020; Barrios et al, 2020).

By systematizing the scientific interpretations of the essence of taxes, it was deduced that in contemporary research the role of taxes on the financial, economic and social level is recognized. Figure 1 shows a new approach, namely the role of taxes on the political level.

Figure no.1 The role of taxes in financial, economic, social and political terms



Data source: made by the authors based on the study of the literature

Financially, the main role of taxation is the fiscal one, through which, according to contemporary authors, the state budget is financed (Miller et al., 2016; Stiglitz et al., 2020), a budget without which the existence of a state is inconceivable. This consists of using taxes to raise budget revenues, thus allowing states to maintain the quality of public services as well as to cover government expenditures.

Economically, the way in which the state can regulate economic activities so that they comply with national priorities highlights the economic function of the taxation process. Contemporary representatives of the economic or regulatory approach (Sineviciene, 2016; Musaye and Musayeva, 2018) consider that the role of taxes on the economic level is manifested by promoting privileges or fiscal barriers, so that certain economic activities are encouraged or restricted.

At the **social level**, the role played by the taxation process is manifested in several directions. For example, it envisages correcting imbalances, ensuring social protection and equality from a fiscal point of view, which can be achieved through reductions, facilities or tax exemptions of some socio-professional categories. However, this social function can also be applied by overtaxing some destructive products / services on the taxpayer. The state can also intervene in correcting the distribution of income, by applying fiscal means to support disadvantaged groups and by its possibility to implement at national level policies for redistribution of part of the gross domestic product in favor of the least advantaged (Oh, 2017).

A recent approach, directly related to the social role of taxation, refers to social justice on taxation (Peters, 2020) and how to promote the role played by tax legislation and establish a similar tax treatment for those with the same income can help, encourage and influence taxpayers, so that, socially, all this leads to the fight against poverty and the existence of societies in which equality prevails.

We believe that, at the **political level**, the role of taxation is materialized by the way in which the state powers can influence the payment compliance of citizens, stimulating the increase of their involvement in the democratic control of taxation.

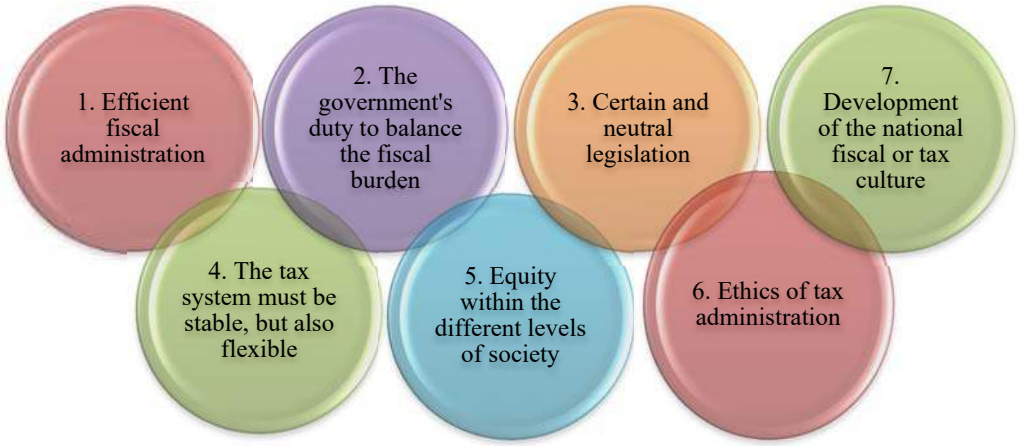
Based on the study of the visions of economic theorists, the principles of taxation, taxation methods, but also the roles of taxation, offers options for fiscal policy, choosing the right features, so that a good tax system can be built, because it is found that their essence remains the same, even if opinions tend to be approached from different points of view.

4. Research results

Regarding the results of the research, based on the previous sections, we note that over the years, the principles of taxation have been developed and supplemented in order to achieve a common an global model of design of tax systems, reaching a multitude of criteria, meant to give the taxation process the characteristic of optimal.

Du-Preez (2018) conducted a historical study of the formulations regarding the principles of taxation and found that, over time, characteristics such as: equity, certainty, efficiency, convenience (Adam's "golden principles") were addressed, plus simplicity, neutrality, transparency, flexibility, acceptability, stability and growth. His conclusion is that in the modern era it is necessary for the taxation to meet the criteria presented in figure no. 2, to which we consider opportune the addition of the characteristic with number 7, respectively the social characteristic of development the national fiscal culture, or tax culture.

Figure no. 2 Principles of taxation in the contemporary period



Source: made by authors based on Du-Preez (2018) and Bringselius (2018)

If we study better the contemporary principles presented above, we can see that most of them are in fact readjustments of Smith's canons: principle 1 refers to maximum efficiency, principle 3 to maximum certainty, principle 4 to convenience, and principles 2 and 5 to Smith's maximum equity. In addition to the initial canons, the principle of ethics in the tax system is intensely debated in the literature. We believe that it can bring a number of benefits, including strengthening internal relations between tax administrations and strengthening relations with citizens, by supporting the public interest, and last but not least, *ethics can influence the need for the last principle, namely forming and developing the fiscal or tax culture from the lowest level, namely the taxpayer, to the higher level, namely the decision makers.*

Thus, we consider that the theory of taxation principles is limited to the reinterpretation according to the need of the tax system, of the "golden principles", to which are added the principle of ethics and the social principle of development of tax culture, and other derivatives.

Regarding the establishment of the Romanian tax system, it is designed based on European principles, through the Fiscal Code and the Fiscal Procedure Code, referring to five fundamental principles, namely: fiscal neutrality, tax certainty, fiscal equity, tax efficiency and predictability taxation. At EU level, according to the European Commission, several "key features" are taken into

account, which are analyzed in assessing the fairness and efficiency of a fiscal system, emphasizing that it is very important for fiscal policy to promote economic growth through the use of taxes and incentives that encourage investment, innovation and economic efficiency. We consider that the structuring of the tax system must be designed in such a way as to minimize distortions in the economy, to develop an employment-friendly environment, not to discriminate against social classes, not to restrict access to public goods and, last but not least, it needs to be designed in a way that addresses the lack of transparency, corruption and tax evasion in the economy.

From the perspective of modern economic analysis, it is considered that fiscal policy is usually viewed in terms of "efficiency" and "equity" and "fairness", the rest of the attributes being only related results. Efficiency and equity are two basic principles of fiscal policy, as well as the design of the tax system, which are also objectives to be achieved in terms of taxation. However, their implementation is often in conflict, as high efficiency usually accompanies the sacrifice of equity, while achieving state revenues at full capacity is often detrimental to efficiency.

We believe that depending on how the principles of taxation are implemented, the impact of the tax system can be felt on:

- economic growth, depending on how tax rates affect taxpayers' decisions to work, save or invest;
- fairness and redistributive effects of taxation;
- sustainability, depending on the ability to obtain sufficient tax revenue;
- social welfare, depending on the capacity of nations to implement measures to create a tax culture at the national level, which will lead to decreases among evasion phenomena, increases in awareness of tax obligations, and strengthening the state-citizen relationship.

Regarding the financial role played by the taxation process, we consider that, given that the existence of the tax function comes from the nature of the tax system and occurs in each case where taxation takes place, it is the most popular, but also the oldest, and the other functions are of secondary importance, and their approval at the level of the specialized literature is not unanimous. Depending on the additions to the state budget, made with the help of the taxation process, also depends the standard of living of all citizens, which materializes in the current state economy.

Regarding the economic role of taxation, we consider that depending on how the tax system is conducted within a state, through taxation can stimulate or stop the interest of citizens to carry out an economic activity, to consume certain goods and / or services, but trade relations with the outside world can also be influenced. The role of taxation in economic terms can be viewed from two different points of view, namely: state incentives and disposable income. The two are in a relationship of mutual dependence.

Through their role, taxes can contribute to job creation, can lead to reductions in inflation and unemployment, but can also can have a negative role, which discourages economic behavior. However, this depends on the tax rate and the elasticity of the economic agent to the tax. It can be said that the lack of tax benefits to encourage the increase in the number of investments, consumption of goods and services, employment, but also additional taxation, made even for the purpose of increasing tax revenues, have ultimately discouraging effects.

In terms of political role, the existing literature shows that democracy and fiscal transparency have positive effects on compliance, and that the participation, consultation and involvement of civil society in tax issues can lead to easier policy acceptance and tax law, on the part of citizens (Riccuti et al, 2019). Thus, it is not desirable for the tax system within the state to be perceived as unfair, because this feeling can encourage evasionist phenomena at national level (Cristea et al, 2020). Therefore, the political legitimacy of the tax is essential and can lead to the creation of a tax culture at the level of society.

5. Conclusions

It is surprising how much the four tax canons of Adam Smith are folded and how consistent are with the approach of modern fiscal policy. The concepts of modern economic theory of "equity" and "efficiency" are embodied in the first and fourth canons, while the second and third canons can be points of thought for the practical functioning of tax systems. This can be translated into the fact that taxation is based on clear rules, so that a limited space is left for the abuse of power by the control

body, which gives practical importance to the collection of taxes in a way that is convenient for the taxpayer.

As for the differentiation of Smith's canons from the contemporary economy, it is their lack of clear guidance on how to balance and achieve the various considerations, and in particular they do not take into account the state intervention in society through fiscal policy. They are focusing more on the taxpayer- legislation - fiscal apparatus triad.

We consider that the theory of taxation principles is mainly based on the reinterpretation of the "golden principles", depending on the need of the tax system of states, to which are added other derivatives, including the principle of ethics and the social principle of development of tax culture. Ethics can influence the need for the formation and development of the tax culture from the lowest level - the taxpayer to the level of the decision makers.

And regarding the four roles highlighted above, we can bring more knowledge in the literature by defining the taxation process, through its roles. Thus, it represents the way to ensure the state budget, to regulate economic activities, respecting national priorities, to redistribute revenues in order to ensure social justice, social protection and equality from a fiscal point of view, as well as to ensure a tax culture, way in which the state policy can influence the payment compliance, but also the improvement of the fiscal apparatus.

Thus, we conclude that it is necessary for the fiscal policy to focus on the implementation of a tax system in which the "optimal" elements presented in this research, and especially the principles of efficiency and equity, to represent its basic characteristics. The efficiency and fairness of fiscal policy measures depend on their ability to lead to the formation and development of the national fiscal and tax culture, in which legislative interventions are at a minimum and invasive level, respecting the criteria of transparency, consistency and certainty. The formation and development of a tax culture at national level aims for the tax system to reach the criterion of stability, so that it can cope with economic changes, but also the efficient management of budget expenditures, in which taxpayers are aware of the importance of paying taxes, so that tax evasion to be reduced, and the fiscal apparatus to encourage taxpayers to continue lawful activities and without traces of legislative illegality.

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Evolution of Romanian Management Consulting Firms from Alba County

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Abstract

This paper aims to investigate the factors that have an influence upon the company size of Romanian management consulting from Alba County. In this investigation we made a quantitative analysis using information from financial statement. We use Ordinary Least Squares OLS method with robust standard errors, consistent with panel-specific autocorrelation and heteroskedasticity. Our study is based on a panel database including 151 companies over the period of 5 years ranging from 2015 to 2019. The empirical results reveal that the independent variables (Financial Leverage Ratio, number of employees, age of firms, cash and profit) explains 32,6% *of the variation of firm size calculated as sales logarithm.*

Key words: firm size, profit, *age of firms, management consulting firms*
J.E.L. classification: L25

1. Introduction

Management consultants support management by providing resources such as time and knowledge and information. The main role of business and management consulting is to help the leaders and members of the management teams of the companies to which they provide these services, to achieve certain objectives, in other words how to get from point A to point B. Management consulting firms help entrepreneurs discover and analyze the strengths and weaknesses of the company and its operations and find ways to lead management team members to discover and solve problems. Discovering and analyzing strengths and weaknesses helps businesses understand where they are now and where they will go in the future. The role of consulting firms is to help firms develop more effective strategies, strengthen the organizational culture, help the management team make better decisions, increase individual and team responsibility in the firms to which they provide these services.

According to the Classification of activities in the national economy (CAEN), management consulting (MC) companies in Romania have Code 7022 and these companies provide consultations, guidance and operational assistance for companies and other organizations on management issues, such as: strategic and organizational planning, processes refurbishment, change management, cost reduction and other financial issues; marketing objectives and strategies; human resource planning and policies; compensation and retirement strategies; production planning and control planning.

According to FEACO, the European Federation of Consulting Associations management consulting includes identifying and investigating problems and/or opportunities, recommending appropriate actions and assisting in the implementation of these recommendations.

Table no. 1 The share of the value of management consultancy activities in the Value of services provided for economic agents

Year	The value of management consulting activities	Index	Market services provided for firms	Index	% MC in market services
2008	9684,6		162289,4		5,97%
2009	9240,2	95,41%	154458,2	95,17%	5,98%
2010	9724,8	100,42%	162542,8	100,16%	5,98%
2011	10477,9	108,19%	178467,2	109,97%	5,87%
2012	11820,8	122,06%	195969,1	120,75%	6,03%
2013	11628,8	120,08%	201505,9	124,16%	5,77%
2014	11605,5	119,83%	220479	135,86%	5,26%
2015	12559,6	129,69%	239515,4	147,59%	5,24%
2016	12959,1	133,81%	247661,9	152,61%	5,23%
2017	13291,4	137,24%	274306,2	169,02%	4,85%
2018	15202,8	156,98%	313848,8	193,39%	4,84%

Source: Authors' calculations on INSSE date

From table no.1 We notice that the value of management consulting activities increased from one year to another, compared to 2008 the increase was 56.98%, but this increase was achieved at a lower rate than the value of market services for enterprises. They increased by 93% in 2018 compared to 2008. The only year in which the index of the value of MC services exceeded the index of the value of consulting services was 2012 when the highest share of the value of MC services in total services was registered (6, 03%) Since 2012 this share has decreased every year reaching in 2018 4.84%.

Table no. 2 Evolution of the number of management consulting firms and their structure according to the number of employees

	Number of entities				The structure of number of entities %			
	2015	2016	2017	2018	2015	2016	2017	2018
MC firms	15812	14863	14300	15105	100%	100%	100%	100%
Active firms	513989	527930	553936	576684				
% in active firms	3,08%	2,82%	2,58%	2,62%				
0-9 persoane	15202	14277	13714	14517	96,14%	96,06%	95,90%	96,11%
10-49 persoane	542	508	508	507	3,43%	3,42%	3,55%	3,36%
50-249 persoane	56	62	60	60	0,35%	0,42%	0,42%	0,40%
peste 250 persoane	12	16	18	21	0,08%	0,11%	0,13%	0,14%

Source: Authors' calculations on INSSE date

From the data of table no.2 it is noted that the share of the number of MC companies had a decreasing evolution from 2015 to 2017 from 3.08% to 2.58%, after which in 2018 this share increased to 2.62%. As a structure of the number of companies depending on the number of employees, it is observed that the largest share, over 95% are companies that have 0-9 employees. In the dynamics, there is an increase in the share of companies with over 250 employees from 0.08% to 0.14%, given that their number has almost doubled and the decrease in the share of companies with 10-49 people from 3.42% to 3.36%

Most large MC companies are not in fact consulting companies, but are management services companies created by companies operating in other fields of activity.

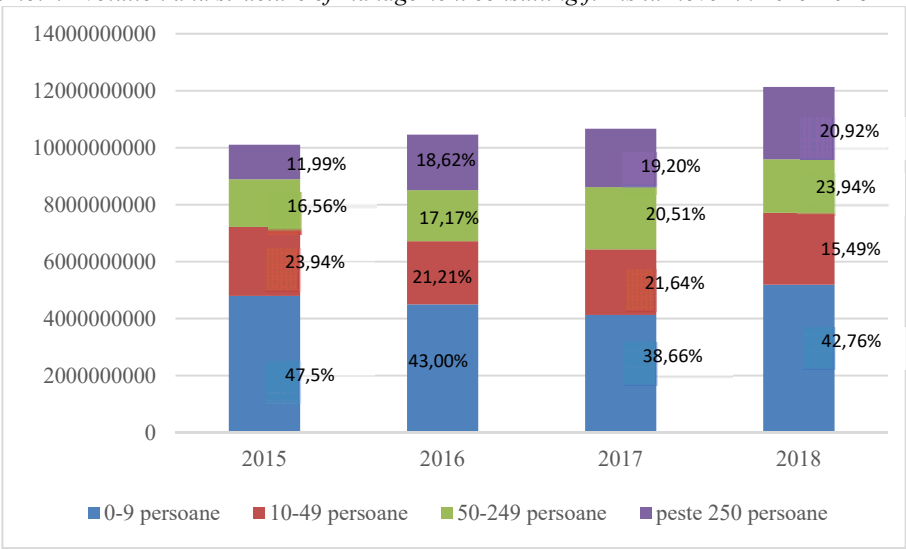
Table no. 3. Evolution of the number of employees of Romanian management consulting companies in 2015-2018

MC Firms with:	No. emploees				Index 2018/2015	Structure of MS Firms			
	2015	2016	2017	2018		2015	2016	2017	2018
0-9 persoane	18294	17424	16720	16323	89,23%	42,60%	38,79%	38,99%	37,84%
10-49 persoane	9905	9532	9622	9901	99,96%	23,06%	21,22%	22,44%	22,95%
50-249 persoane	5587	6877	6370	6234	111,58%	13,01%	15,31%	14,85%	14,45%
peste 250 persoane	9162	11086	10172	10683	116,60%	21,33%	24,68%	23,72%	24,76%
Total	42948	44919	42884	43141	100,45%		100%	100%	100%

Source: Authors' calculations on INSSE date

We notice an increase in the number of employees within MC companies in 2018 compared to 2015 by 0.45% but their distribution within companies is different. Comparing the year 2018 with 2015, we notice that the share of employees in companies with over 250 employees increased by 1.44% and the share of companies with over 250 employees by 3.43%, decreasing their number in companies with less than 50 people.

Figure no.1. Evolution and structure of management consulting firms turnover in 2015-2018



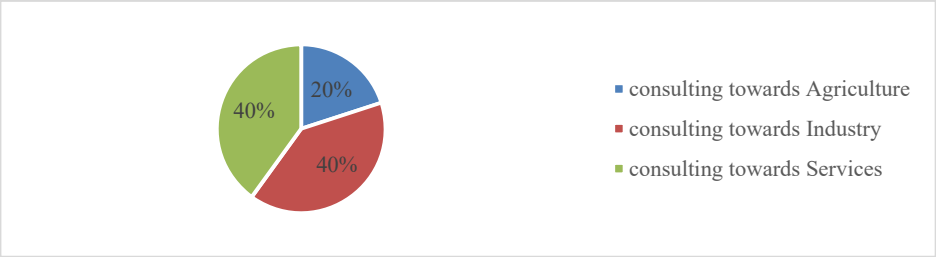
Source: Authors' calculations on INSSE date

The turnover of MC companies had an increasing evolution, in 2018 compared to 2015 it increased by 20.10% and by categories of companies the highest increase in turnover was registered in the case of companies with over 250 employees (with 109%) although their share in turnover is only 20.92%.

As an evolution of the CA structure, we notice the share of over 40% of the turnover achieved by companies with 0-9 persons and the decrease of this share by 4.74% in 2018 compared to 2015. Also, the share of turnover achieved by companies with 10-49 decreased persons with 8.45%, instead increased the share by 7.38% and 8.93% respectively of the turnover achieved by the companies with 50-249 employees and of those with over 250 employees.

Regarding the factors that influenced the increase, respectively the decrease of the companies' turnover, the ones that occupy the first places are: the EU financing programs and the diversification of the services offered to the clients in case of the increase of the companies, legislative and economic in case of decrease in turnover of companies.

Figure no. 2 Management consulting in Romania, 2018



Source: AMCOR, Romanian association of Management Consulting Companies

For many consulting firms The European Funds continue to be a serious business driver. Management consultants are engaged both in the preparation of the proposals and in the implementation of the EU funded projects. International projects represent roughly 40% of the overall MC market in year 2018.

2. Literature review

Some papers analized the factors that generate the expansion of firm's activity.

Mateev and Anastasov (2010) and Sampagnaro and Lubrano Lavadera (2013) argue that firm size is one of the most important factor that generate firm growth. Mateev and Anastasov (2010) analyze a sample of 560 SMEs from Eastern and Central european countries and argue that „*leverage, current liquidity, future growth opportunities, internally generated funds, and factor productivity*", but also firm size measured as total assets explain the extension of firm, although age and ownership seem not to be important.

Sampagnaro and Lubrano Lavadera (2013) analyze Italian firms for the period between 2001 and 2008 and the growth of sales is affected by the age of the firm, firm size and the capacity of internal financing.

Avdullahi and Ademi (2020) suggest, after analyzing 600 businesses in Kosovo, that business age affect the firm's sales, and, in case of the firm size, their results suggest that the sales is growing as long as the number of employees of the firm is bigger.

Jeger et al. (2016) analyze the financial factors that affect the SMEs growth especially in times of economic downturns and suggest that, because of their lower access to external financing, the strategy adopted by these kind of firm is generally an organic one.

Islam et al (2011) analyzed, based on survey data, the importance of the entrepreneur and of the firm characteristics on the perceived success of the SMEs and their results show that, for Bangladesh, firm characteristics seem not to influence the success of the firm, contrary to the entrepreneurial aspects of the owner and the managing team.

Uwitonze and Heshmati (2017) analyzing the service firms from Rwanda find that most important factors that affect the turnover are the gender of the manager, openness and taxes. Hitt et al (2001) analyze 93 of the largest law firms in the US and suggest that human capital is very important for firms to realize better results, the effect of human capital being curvilinear. This suggest that after some time, the results will grow as the capacities of the personnel will be higher. Also, their results argue for a positive effect of leveraging human capital on the firm performance.

Megaravalli and Sampagnaro (2019) analyzed the determinants of firm sales growth for 45,000 family business in Italy, and highlighted that the most important factors are liquidity ratio, solvency ratio, cash flow and and firm age.

In a literature review adressed to knowledge-intensive business services, Muller and Doloreux (2009) find that there is no consensus about the definition of KIBS, but also that most of the empirical studies investigate aspects related by innovation in this kind of services. Di Giacinto et al (2020) analyze the geographical location of knowledge-intensive business services and finds that there are located especially is in the urban space, because of a better productivity and a benefit provided by the vicinity of firms they work for.

Some researchers Pleitner *et al.(*1998) and Dass (2010) investigated the strengths that are common to SMEs compared to larger companies. These strenghts are: high quality standards and individualized product/service offerings while enjoying a flexible cost structure, flexibility through the concentration of decision-making authority and short information structure, spontaneous ability to adapt to changing market environments and customer needs, and ability to avoid overpowering ideology and bureaucracy through personalized communication.

3. Research methodology

In most investigated specialized articles written by foreign and Romanian authors, the size of the company calculated as ln (sales) or Ln (total assets) is an independent variable that influences the profit or rates of return (Lazăr, 2015, Pantea et. All 2014, or a control variable (Anton 2016).

Dang *et al*, (2010) made a research about use firm size measures (total assets, total sales, and market value) of equity in empirical studies. They find that 49 papers use total assets, 20 papers use market capitalization, 16 papers use sales, and 2 papers use number of employees for firm size measure. In their opininon literature has little to say about the rationale of using a certain measure of firm size for specific corporate finance research, and no paper provides a comprehensive assessment of the sensitivity of empirical results in corporate finance to different measures of firm size.

In this research we tried to determine which are the factors that influence the size of the company calculated as ln (sales), so the size of the company is considered as a variable dependent on other factors.

In our study, we aim to make a contribution to the existing literature through empirical evidence of five-year data from 2015-2019 of the management consulting Romanian firms of Alba county.

In our study we used a date base of financial statement of Romanian firms of Alba county which have 7022 CAEN cod for 2015-2019 period. First, we have 249 firms but we eliminate the firms that were established after year 2015 to have date for the investigate period. Thus, 151 companies remained in the database.

We use Ordinary Least Squares OLS method with robust standard errors, consistent with panel-specific autocorrelation and heteroskedasticity.

Variables:

The dependent variables in our model is the size of the firm which is calculated as natural logarithm of turnover.

The regressors of the model, the explanatory variables used in our analysis are:

- Financial Leverage Ratio (FLR) is Debt-to-Equity Ratio and is calculated as Total Debt / Total Equity. Each industry has different debt to equity ratio benchmarks, as some industries tend to use more debt financing than others. Because Majority of MC firms are smaller businesses, they have, a low debt-to-equity ratio.
- $No_employees_{it}$ is number of employees of firm i in year t

Within the consulting companies from Alba county, we notice, depending on the number of employees, over 98% have less than 10 employees.

- Age_{it} is age of firms, is number of years between the data setelment of firm i and year t
- Cash. Cash represents cash in cash and bank accounts. We consider cash the blood circuit of a company, without cash companies cannot carry out their activities of any kind starting from the moment of establishment and continuing with the daily constraints from raising receivables and paying suppliers, making proposed investments, and so on.
- profit is calculated as revenue minus expences.

For the variables profit and cash, due to the fact that we also had negative values, we proceeded to rescale the indicators adding the minimum of the variable plus 1 and after we proceeded to logarithm the variables

- return on assets **(**ROA**)** calculated as Profit/Total assets

Table no. 5 Descriptive statistics for LN_CA model

	N - observations	**Mean**	**Std. Dev.**	**Min**	**Max**
LN_CA	497	11.08757	1.81329	4.394449	16.67793
FLR	645	1.666682	21.77718	-268.381	242.3755
No_employees	651	3.079877	24.12193	0	375
LN_Cash	649	8.999451	2.753405	0	13.05299
Age	700	10.33571	4.73717	1	28
LN_Profit	649	12.61507	.569424	0	14.9369
ROA	639	1.349537	4.864556	0	103.333

Source: Authors' calculations

The first step in methodology was to check the stationarity of the variables in the Panel Regression Model with Fisher Test.

The estimates are run through OLS panel data method with robust standard errors, consistent with panel-specific autocorrelation and heteroskedasticity. The impact of independent variables on LN_CA is examined on the annual basis through the following baseline models specification.

$$(1) \quad LN_CA = \beta_0 + \beta_1 \times FLR_{i,t} + \beta_2 \times No_employees_{i,t} + \beta_3 \times Cash_{i,t} + \beta_4 \times Age_i + \beta_5 \, xProfit_{it} + \varepsilon_{i,t}$$

$$(2) \quad LN_CA = \beta_0 + \beta_1 \times FLR_{i,t} + \beta_2 \times No_employees_{i,t} + \beta_3 \times Cash_{i,t} + \beta_4 \times Age_i + \beta_5 \, xROA_{it} + \varepsilon_{i,t}$$

where $FLR_{i,t}$ denotes Total Debt/Total equity (annual %) for firm i in year t,

$No_employees_{i,t}$ represents medium number of employees of company i in year t,

$Cash_{it,}$ = LN(Cash) represents cash in cash and bank accounts, for firm i in year t,

$Profit_{it}$ = Ln (profit) for firm i in year t,

ROA_{it} = Profit/Total Assets for firm i in year t,

Age_{it} represents number of years from the date of establishment of firm i until year t

$\varepsilon_{ij,t}$ is an *id* error term specific to firm i in year t.

Table no. 6 presents the correlation matrix for the variables. There aren't correlations bigger than 0.5 between regressors and all variables used.

Table no. 6. Correlation matrix LN_CA model

	LN_CA	FLR	No_emplyees	LN_Cash	Age	LN_Profit	ROA
LN_CA	1.0000						
FLR	-0.0605	1.0000					
No_emplyees	0.2888	0.0097	1.0000				
LN_Cash	0.4540	0.0266	0.0104	1.0000			
Age	-0.0145	- 0.0932	-0.0533	0.0104	1.0000		
LN_Profit	0.2048	-0.0542	0.1033	0.0995	0.0584	1.0000	
ROA	-0.0115	-0.0367	0.0479	-0.2529	0.0012	- 0.0051	1.0000

Source: Authors' calculations

According to the table no.6, we notice that there is an inverse connection between the turnover and the age of the company, which means that the newer the company is on the market, the higher the sales.

Between number of employees and age is an inverse relation, in case of MC firms if firms have more age this does not mean that firms have more employees. Over 98% of management consulting firms have les 10 employees.

There is an inverse link between return on assets and sales, most of these companies have a significant share of current assets and the higher the rate of fixed assets the company has lower profit and vice versa.

4. Findings

We have performed the regression based on the variables which were included into the model and we have examined the results.

Table no. 7. Empirical results of panel regression for ln_CA

	(1)	(2)	**Expected sign**
VARIABLES	ln_CA	ln_CA	
FLR	-0.00574	-0.00606	-
	(0.00572)	(0.00563)	
Profit	0.352		+
	(0.289)		
cash	0.400***	0.434***	+
	(0.0475)	(0.0485)	
Age	0.00950	0.0133	+
	(0.0133)	(0.0135)	
No_employees	0.0198***	0.0204***	+
	(0.00303)	(0.00307)	
roa		0.0304	+
		(0.0278)	
Constant	2.553	6.585***	
	(3.524)	(0.542)	
Observations	494	495	
R-squared	0.326	0.318	
adj. R-sq	0.319	0.311	
rmse	1.499	1.508	

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: Authors' calculations

In the LN_CA model, the sample is comprised of 494 observations and the expanatory index of the model, which consists in the R-squared, is at the medium level of 32,6%. The independent variables explains 32,6% of the variation of LN_CA.

The remaining 71.4% of the company's size is explained by other variables that are qualitative such as: economic factors, management factors, socio-cultural factors, political factors, legal factors and other factors.

5. Conclusions

We have performed the regression based on the variables which were included into the model and we have examined the results. In the LN_CA model, the sample is comprised of 494 observations and the expanatory index of the model, which consists in the R-squared, is at the medium level of 32,6%. The independent variables explains 32,6% of the variation of LN_CA. The rest of 71,4% is explaned by other variable.

However, our research is based on firms from one county. Future research can get conclusive findings by increasing the number of firms and make comparison between counties, to find if there are economic factors that influence the size of the firms. We can include in our model qualitative factors such as: style of management, relation with the clients and other factors.

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The Concept of Cost and Determination of the Production Cost of a Finished Product on a Agricultural Holding

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Abstract

Most often economic specialists who have direct links with the accounting and financial reporting of entities carrying out agricultural activities have encountered a number of problems due to the diversity of activities and the lack of general regulations regarding the substantiation of the costing methodology based on the specifics of the activity. It is very important for an entity to calculate and record the costs of carrying out the business after which they depend on the success of the entity. Cost accounting is not seen as a source of information, but as an important pillar in the development of future development strategies.

Key words: cost of a product, agricultural holding, accounting
J.E.L. classification: J43, O13, Q10

1. Introduction

In this paper I wanted to highlight how to calculate and account for costs on a farm, both theoretically and practically. I studied and treated this topic with great interest, out of the desire to know the economic-financial links that are established between actual costs and estimated costs, but also to improve my knowledge in the field of determining and accounting for costs, because based on the results obtained are based on the most important business decisions. The economic fundamentals approached were based on national legislation and accounting doctrine, and in terms of practicality was made so as to meet the information needs of economic agents and the Romanian legislator. The use of cost information in decision making, the application of modern and efficient costing methods can lead to rethinking the information and decision-making system of the company and can be the solution to survive the impact of the crisis.

2. Literature review

The issue of costs is of particular importance in the literature. It was concluded that there is no unitary definition of it, and the different forms of cost serve the need for internal information of the entity in different contexts. Costs are recorded in each organizational structure of the enterprise, the role of management accounting being to measure, impute and control them through calculation methods.

The use of cost in the management of economic entities by managers is an action of first interest. In the conditions of the current economy, marked by globalization and the increase of competition through the use of modern technologies, the knowledge of management techniques through the use of cost information is a necessity.

From a practical perspective, the consumption of values is not made to obtain a single unit of product, but for a predetermined quantity, depending on the particularities of the technological process. The unit cost of a product can be obtained by a simple mathematical calculation, as a ratio between the value of consumption generated by obtaining and selling its production over a certain period of time and the quantity of products obtained. Therefore, it can be said that two components that define the unit cost are: the value expression of the production and sales expenses and the

production that occasioned them, from these phrases we can draw the conclusion that the management accounting studies the value side of the production process. Two important aspects can be studied in relation to the cost of production, namely: the composition and mode of formation of production and sales costs and the characterization of costs and costs in relation to certain criteria underlying their formation and leading to their classification. in a certain typology.

The notion of production and sales expenditure is easily assimilated to the production process, which is based on three essential productive elements: natural resources, capital and labor. The use of these three factors in the production process determines in a way their consumption aspect that generates production costs. Natural resources are represented as a primary, raw production factor, being used to obtain various goods, perform some works and provide services. The capital factor is divided into fixed capital, which fully participates in obtaining goods, works, services, keeping its form and working capital that materially becomes part of the new product. The labor factor highlights the physical and intellectual potential of the staff employed in creating the new utility value, this factor is rewarded for the effort made, in the form of salaries.

The phenomenon of development and change of everything around us, has led companies to adopt the idea that the most effective way to survive in a constantly changing market is to reduce costs without affecting the quality of products, works, services and maintaining an optimal level of profitability that allows the continuous development of the business. The measures implemented in order to reduce costs must be sustainable, i not produce negative effects on the future results of the entity, be effective, by applying those measures to obtain results far superior to investments and be realistic or more precisely that company to achieve them can implement.

The most important step that is part of the cost analysis is to increase the efficiency of resource consumption in internal value creation processes, ie by implementing cost reduction measures the company must ensure that product quality is not affected and has no negative influence, over time, on the indicators of activity results. The effort made by the company to implement strategies and methods to reduce costs must be justified by the effect obtained by increasing the ratio between resources consumed and value created.

Reducing costs does not automatically increase the efficiency of consumption because there are quite complex relationships between the resources consumed and the value created. There are resources that by optimizing consumption lead to increasing the efficiency and effectiveness of the whole value creation process (examples: reducing raw material losses, reducing waste), but there are also resources that by optimizing costs lead to short-term effects of increasing efficiency activity or may lead to a decrease (for example: reduction of costs for modernization, innovation in a changing market).

Reducing direct costs means optimizing the volume of raw materials and consumables directly attributable to obtaining products and reducing the purchase prices of these materials. The second way to reduce costs involves rethinking the production process and the default product by reducing the consumption of raw materials and materials, but making us discount the quality of products.

3. Research methodology

Choosing the field of research is the starting point in designing and conducting any scientific research. Thus, this paper falls both in the field of cost management issues, as a tool in the management of economic entities, and in the field of accounting research, especially managerial accounting, our research approach falls within the sphere of the predominantly positivist current, and through this we try to bring the necessary explanations for a detailed and in-depth approach on different conceptual and practical aspects of the cost management issue. Through this, we also try to offer forecasts regarding the regulations and practices in the field of management accounting, but also proposals to improve specific methodological steps.

During the paper we ensured the interaction between the different case studies in order to discover new information on the approached topic. These were carried out with the help of models, annexes and interviews conducted directly with people who have skills in the field of management accounting. They provided a priority application component, specific to the field of accounting and supported the intention to improve the methods of calculating the traditional costs currently applied in Romania, with the modern ones existing internationally.

The paper is based on a topic specific to the field of food production in the field of agriculture, and on documentation from the literature. Economic disciplines, through their practical character, form skills but also instigate readers to a more in-depth research, to the desire to discover as much information as possible that is folded to everyday life. It focuses on a deductive approach from the general to the particular, combining quantitative and qualitative studies. The theoretical content came in support of a better understanding of the economic and financial situation within the entity and represented the scientific support of the whole approach. The qualitative research had as a fundamental element the interpretive method to analyze the information - accounting flow within the studied enterprise.

4. Findings

The need to establish a correct and realistic production cost of a finished product obtained on a laying hen farm, the production cost of an egg, has led to finding an optimal calculation method based on the expenses generated by the entity. in order to obtain the necessary, income-producing production. In general, when you think about the value of an egg, you tend to think that it can be determined very easily, but this is not the case, because the production cost of an egg includes a multitude of expenses generated in order to obtain it. We start to determine the production cost of an egg from the trial balance, because it includes all the expenses incurred with its production. The period for which this cost is calculated is 31 calendar days.

Table no 1. Expenditure taken from the checking balance

Cont symbol	**Account name**	**Total expenses in January (RON)**
602.02	Fuel expenses	8,346.84
602.03	Expenditure on packaging materials	2,987.31
602.04	Spare parts expenses	352.50
602.06	Feed costs	813,216.12
602.08.01	Expenditure on office supplies	1,201.67
602.08.02	Expenses with cleaning materials	926.00
602.08.03	Expenditure on other consumables	3,368.24
604.03	Expenditure on other non-stored materials	28.32
605.01	Energy costs	24,217.75
605.02	Water expenses	3,583.23
606	Expenditure on animals and birds	165,879.52
607	Expenditure on goods	92,469.00
608	Packaging costs	31,696.50
611.01	Expenses for car park repairs	1,757.42
611.02	Expenses for repairs of equipment in the hall	372.00
612	Charges, rents and rents	1,400.00
613	Expenses with insurance premiums	1,727.55
623.03	Non-deductible protocol expenses	65.07
624	Expenses for the transport of goods and personnel	870.00
626.01	Phone expenses	3,592.38
626.03	Postal expenses	416.54
627	Expenses with banking and similar services	321.55
628.04	Expenses with other services provided by third parties	61,458.31

635	Expenses with other taxes, fees and assimilated payments	232.24
641	Staff salary expenses	81,612.00
642	Expenses with meal vouchers granted to employees	3,296.23
658.01	Compensation, fines, penalties - deductible	152.61
658.02	Expenditure on assigned assets and other capital operations	1,574.45
665	Expenses from exchange rate differences	0.37
681.01	Operating expenses on depreciation of fixed assets	102,398.21
TOTAL EXPENSES		**1,409,519.93**

Source: Author's projection

After identifying the expenses that are part of the production cost, using the check balance, we must determine the amount of eggs produced in that month by summing the daily quantity recorded in the daily production reports, during the study period. Also in the daily production reports is mentioned, in a separate section, the quantity of broken eggs on that day that are incinerated because they can no longer be recovered in any form. From the eggs obtained in one day, the broken eggs are subtracted to determine the total number of eggs produced that meet the optimal parameters for consumption and marketing.

Table no 2. The total number of eggs that may be marketed

Total production, of which:	3,874,231.00
Broken eggs	54,196.00
Total eggs produced - broken eggs	3,820,035.00

Source: Author's projection

The next step in our study is to determine the cost of an egg. Knowing the above data we can calculate the cost of an egg in which we include all expenses, the cost of an egg in which we do not include the expense of depreciation of fixed assets and depreciation of birds.

The cost of an egg = the total expenses taken from the checking balance / the total number of eggs that can be sold = 1409519.93 / 3820035 = 0.369 lei / egg;

The cost of an egg without depreciation of fixed assets = (total expenses taken from the checking balance - operating expenses regarding the depreciation of fixed assets) / total eggs that can be traded = (1409519,93 - 102398,21) / 3820035 = 0.342 lei / egg;

Cost of an egg without depreciation of fixed assets and poultry = (total expenditure taken from the checking balance - operating expenditure on depreciation of fixed assets - expenditure on animals and birds) / total eggs that may be marketed = (1409519,93 - 102398,21 - 165,879.52) / 3820035 = 0.298 lei / egg.

It can be said that determining the cost of production is important both for the manager in making future decisions and for setting the selling price by adding the commercial addition. Following the calculations we noticed that to produce a single egg we spend 0.298 lei without taking into account the expenses generated by the depreciation of fixed assets and birds. This cost of production varies from month to month because it is influenced by a multitude of factors, such as the change in the price of feed, energy, fuel and various consumables.

5. Conclusions

The development of agriculture in general and of Romania's agriculture in particular requires the large-scale implementation of information programs, of processes specific to the agricultural field, from the production of goods adapted to the needs of the agricultural market, to the optimization of the data and information collection process used by the accounting system. in order to streamline agricultural economic activity.

The study was conducted by addressing the concepts of management accounting in the agricultural sector, egg production, which allowed the formulation of general conclusions. Management accounting has evolved progressively from the role of recording information on costing, to the role of information support in making management decisions. Providing cost information in the shortest possible time to substantiate managerial decisions allows the establishment of medium and long term strategies that have as a starting point the management accounting reports. Thus, new objectives are established, calculation methods adapted to them and the human, material and time resources necessary for the implementation of the related operations are established, as well as plans for the improvement of the existing activity.

Another aspect of the research was the identification of the stage of application of management accounting within a company in the agricultural field. The food market is experiencing an intense renewal and diversification due to the satisfaction of the growing desires, preferences, needs and demands of consumers. The achievements in the food field are on an upward trend, witnessing a spectacular evolution in recent decades. If at the macroeconomic level the quality of products is increasingly assessed in close connection with the quality of life, at the microeconomic level the increasing level of consumer requirements, their need for information and education must stimulate entrepreneurs' concerns to diversify and improve food quality.

We can say that setting the cost of production is important both for the manager in making future decisions and for setting the selling price by adding the commercial addition. Following the calculations we noticed that to produce a single egg we spend 0.298 lei without taking into account the expenses generated by the depreciation of fixed assets and birds. This cost of production varies from month to month because it is influenced by a multitude of factors, such as the change in the price of feed, energy, fuel and various consumables.

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Creativity of the Company's Income Multiplier

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Abstract

In this study we highlighted the role of creativity in the innovation process that aims to apply new ideas in practice, whether we are talking about completely new ideas or a new context in which older ideas are exploited, requiring the creativity of all employees. The study of creativity aims to decipher the complexity of the phenomenon of creation, to find methods and techniques for its stimulation and superior capitalization. On the other hand, we concretized this paper which included a series of momentary economic effects, but also the lasting effects that appear at the level of the company as a result of the manifestation of employees' creativity, in different forms. Human resources become a strategic resource with a unique growth potential, and the skills, knowledge, expertise and creativity of employees are crucial in the economic and financial performance of the company.

Key words: *creation, expertise, inventions, opinions, evolutions*
J.E.L. classification: M21, M41

1. Introduction

Creativity is the key factor in progress and the key to problem solving for self-realization and self-promotion. Creativity has long been considered the prerogative of artists, researchers and scientists, so that today we approach creativity as a human sequence existing in each individual, to a different extent, educable and possibly stimulated by specific methods and techniques.

Growing and maintaining competitiveness in a highly competitive and unstable market is not possible without designing new or improved products, diversifying and customizing them, new ways of distribution, marketing and promotion.

Thus, the creation and management of knowledge acquires a central place in the concerns of organizations and their managers, design and innovation becoming essential activities in value creation.

2. Literature review

Roșca (1981) selects, from among many definitions, those considered eloquent for the dimension it highlights.

Hermann (1992) makes the connection between creativity and brain laterality and starting from the fact that the educational system is dominated by the emphasis on verbal and rational, so on the development of the left hemisphere, considers that there is a crisis of arts education by neglecting nonverbal ways intuitive and imaginative.

3. Research methodology

The literature in the field describes multiple opinions, sometimes even divergent, depending on the isolated treatment of creativity; currently there is no comprehensive theory to address this phenomenon in all its complexity.

A first approach to creativity starts from the analysis of special scientific and technical creations, of the great inventions that marked the evolution and development of human society.

His preoccupation with measuring creativity led J. C. Guilford to initiate the psychometric approach, the tests developed by him and later by E.P. Torrance proposing an assessment of creativity through the fluidity of answers, their flexibility and the degree of originality.

The neurobiology psychological theory of creativity reveals new interesting information and tries to find a scientific answer, analyzing in depth the processes that take place in the human brain.

Russu, Mihaescu, Pelinescu, (1989), makes a deeper nuance and identifies five levels of creativity that differ in the depth of the creative act and its magnitude:

■ Expressive creativity which is a spontaneous manifestation and without a special originality;

■ inventive creativity is specific to inventors who, from the unique combination of known elements, find new uses for them;

■ innovative creativity is attributed to the creators of schools, currents that bring profound changes, of essence in art, science, technology, etc. leading to new directions of development in that field;

■ emergent creativity is the rarest and highest form, being characteristic of the great creators who revolutionize various fields of human knowledge or experience.

Many foreign and Romanian authors agree on the existence of 4 stages (which in turn can be divided into other sub-stages): preparation, incubation, lighting and creation. This stage of free manifestation of pre-conscious processes is called incubation, it most often occurs in the states of sleep, dream and daydreaming.

■ Lighting is the essential moment of creation, unique and unrepeatable, in which the idea of not the distant elements occurs and the passage of this combination in the field of consciousness.

At this stage there is the sudden appearance of the solution to the problem, of new ideas, without the knowledge I give the intention of the creator, through a synthetic cognitive process, inexplicable and incommunicable, which some authors identify with intuition.

■ Completion or verification concludes the creative process by returning to reality, to logic in order to review, refine the ideas and solutions found, so that they can be materialized in real technical solutions, valid and applicable to the given conditions.

Roger von Oech has a different vision, considering that the creation process involves the terminal phase and the practical phase.

In the germinal phase it delimits: the motivation in which the energy necessary for creation is generated, the search and gathering of information, the manipulation that ensures the transformation of resources and ideas, the rethinking and elimination of inappropriate hypotheses, the incubation that involves forming the idea in the subconscious out.

The practical phase includes the evaluation of the idea and the action that actually ensures the completion of the creative process and which is often the most difficult step.

The term innovation is attributed both to the process that has the practical purpose of applying new ideas, and to the actual result of this process materialized in new products, processes or systems.

The successive development and refinement of an invention to obtain technical services products that will be placed on the market or used within the enterprise is the most widely used definition for innovation.

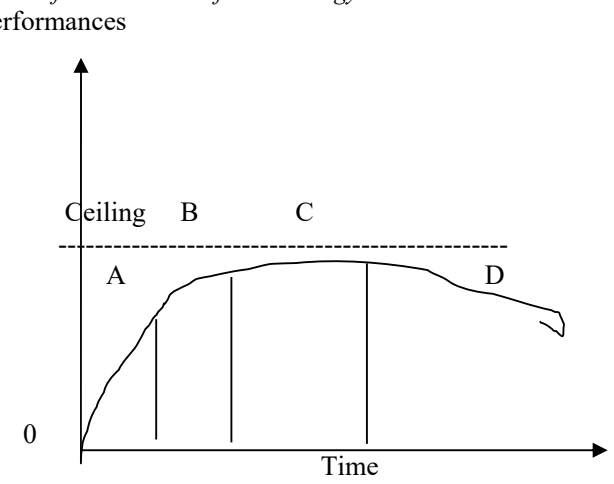
The concept of innovation knows, like creativity, many definitions, so in a broad sense; innovation can refer to a new product or technological process, to the introduction of a new model.

The analysis at the level of an enterprise provides a clearer picture of the role and importance of creativity, the practical way of manifesting its possibilities to stimulate and capitalize on this particularly valuable human capacity.

The approach of novelty therefore requires a broad vision in the process of creating new products or improving existing ones, from which neither the engineering criteria nor the market criteria can be excluded.

Developed by PDMA (Product Development Management Association, Mont Laurel, New Jersey), the system is now widely used in many large companies, namely managerial decisions that allow or not to continue the process.

Figure no. 1. Logistic curve of the evolution of a technology



Source: Baloiu, L., M., *Innovation management*, Efficient Publishing House, 1995, p.121

There are several areas on the curve:

OA = maintenance period in which the technology is new is not yet well developed and has not been imposed;

AB = the period of development, in which the technology is in full swing and is required;

BC = capping period, in which the technology and reached the limits;

CD = the extinction period, in which the technology is eliminated.

How the differences in the technological stage and their degree of overlapping follow one another over time, as well as the extent of each curve, depends on the evolution of each new technology.

The effects of innovation appear not only in the respective sector, but also in related fields, due to the tendency to induce other innovations (Schumpeter, 1939).

The best known model of economic evolution is that of Nelson and Winter (1982), who, taking Schumpeter's theory and focusing on technological competition as a driving force for the development of capitalism, assumes that firms compete by reinvesting their profits in technology or equipment. new, more productive successful ones get high profits and grow faster than others.

According to the theory of Nelson and Winter (1982), the company has a specific behavior that no longer seeks to maximize profit, including very well-defined technical production procedures, procedures for conducting and conducting research and development, to strategies for product diversification, investment and marketing.

4. Case Study

The entity TIPO SRL with the main object of activity research-development in the field of thermal engines.

The market on which the company sells its products is a very competitive one, internally there are many small and medium producers that supply a range of similar products, and the evolution of prices for raw materials, energy, fuel have seen spectacular growth, with predictable future increases equally important, which exerts increased pressure to reduce the cost of goods.

The use of machine tools with program control was not possible without the design, design, devices, Scholes and verifiers specific to these new products, as well as the design of an applied Software that allows the use of merit commands under changing technology parameters for each work piece (this required due to the specifications of each casting which shows variations in size resulting from casting technologies)

The design and implementation of this software were allowed to significantly reduce the number of processing hours per piece, leading to an increase in production capacity by approx. 15%, under the conditions of the same technical endowment.

As a result of the modernization and implementation of the automatic processing program, there was a considerable reduction of the related labor (as a result of the increase of labor productivity), of the processing costs and implicitly a higher profit in the conditions of maintaining the price level.

At the level of 2018, the main indicators registered for the three new products are presented in the following table:

Table no. 1 The main indicators

No. Crt.	Rod sign	Produce A	Produce B	Produce C	Total
1.	Amount q (buck.)	28	24	38	
2.	Unit processing time t_0 (man-hours)	275	194	241	
3.	t_1(man-hours)	190	134	151	
4.	$\Delta t = t_0 — t_1$	85	60	90	
5.	i_t	1,45	1,45	1,60	
6.	$\Delta_q{}^t$ buck.	8	7	14	
7.	Price lei	11.136,4	6.539,7	100.886,3	
8.	Δ_{CA} lei	8.9091,2	45.777,9	152.408,2	287.277,3
9.	Δ chd	231,4	163,3	245	
10.	Δ chd	6.479,2	3.919,2	9.310	19.708,4
11.	c_v variable expenses	7.359,8	3.990,4	7.047,7	
12.	c_f fixed expenses	1.685,5	1.188,7	482,9	
13.	q_{cr}	0,44	0,46	0,12	
14.	q_v x P	311.819,2	156.952,8	413.679,4	882.451,4
15.	q_v x c	253.267,5	124.298,2	286.166,2	663.731,9
16.	Re	58551,7	32654,6	127513,2	218719,5
17.	Rc				24,7

Source: author processing

◙ Labor productivity, in this case, was determined in the form of the average time per unit of product [1]:

$t = T/q$ (1)

where:

q is the volume of production

T consumption of labor expressed in man-hours to unit processing time (man-hours) before machine upgrades t1 unit processing time (man-hours) after machine upgrades

The labor productivity index for each product was calculated:

$it = t_0 / t_1$ (2)

Relative change in labor productivity: Rt = it - 1

Absolute change in labor productivity: Δt = to - t1

Production surplus achieved due to the change of time per unit of product:

$\Delta qt = (t_o - t_1)\ q/to$ (3)

Potential increase in turnover: ΔCA = Δqt p

Reduction of unit costs as a result of direct wage expenditure: cheltuchd = (t1 - to) sh_0 (4)

where:
sho the average salary per unit of time is 2.72 lei

◙ Reduction of product costs:
$\Delta Chd = q\ \Delta chd$ (5)
Increasing the profit per unit of product $(t_0 - t1)\ sh_0$
Increasing the profit per product $\Delta p = q\ (t_0 - t1)\ sh_0$

◙ Profitability threshold (critical physical volume of production) for each product:

$$q_{cr} = \frac{cf}{P - cv} \quad (6)$$

where:
cf = fixed expenses per product
P = unit selling price
cv = cheltuieli variabile pe produs
$cv = cv_0 - t_1 sh_0$ (7)
Re profit related to exploitation: $Re = \Sigma\ qV \times P - \Sigma\ qv \times c$
qv the quantity sold is equal to that produced

◙ Efficiency of operating assets
The operating assets are worth 4,145,637 lei
CA turnover was 3,917,451 lei

$$Ef_{AE} = \frac{CA}{Ae} \quad (8)$$

$Ef_{AE} = 0.94$

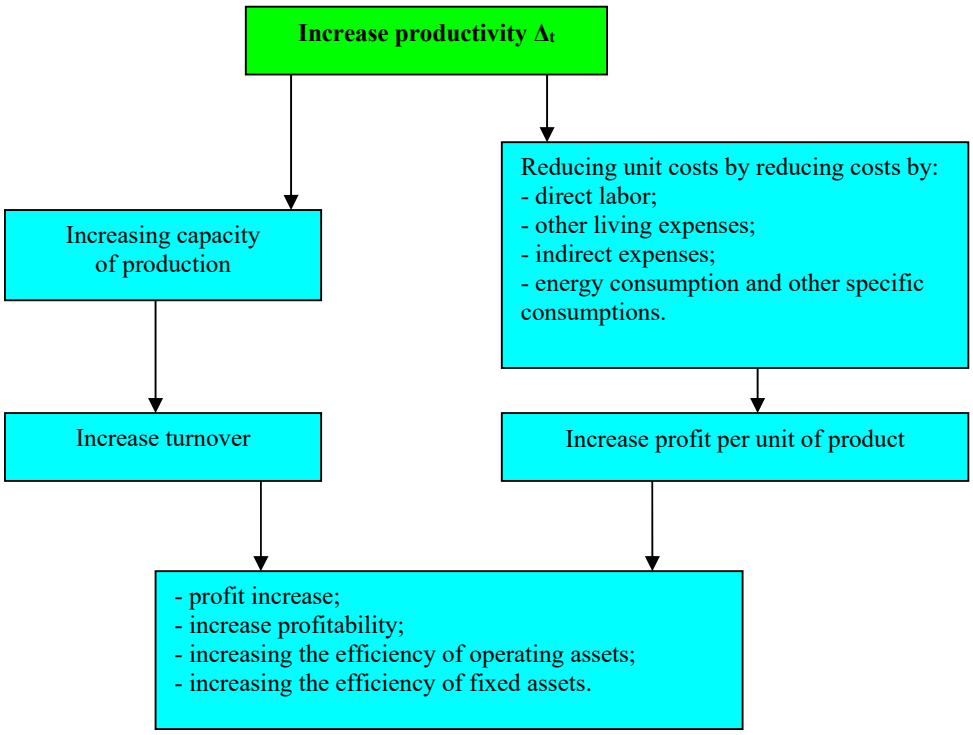
◙ Efficiency of fixed assets
The fixed assets have a value of 695,663 lei

$$Ef_{MF} = \frac{CA}{MF} = 5{,}6 \quad (9)$$

◙ Commercial profitability rate:

$$R_c = \frac{Pr}{\sum qv \times P} \times 100 \quad (10)$$

Outlining the effects induced by creativity manifested in the design and design of the three products, modernization of equipment and development of high-performance programs to automate processing processes and considering increasing machine efficiencies as the main cause of increased labor productivity, we can highlight a chain of effects as presented in the following diagram.



Due to the nature of the main object of activity, creativity was and continues to be a main component of the activity carried out within TIPO SRL, the continuation of its own research being done in order to further capitalize on the results by applying them or selling to other customers.

The research staff has a rich experience and meritorious results in the field of thermal engines, the stock of knowledge, the skills being also appreciable, what is missing is their capitalization, finding market opportunities to relaunch research both fundamentally and on the applied one.

5. Discussion

Given the competitive situation on the market of motor vehicles and their components, the orientation mainly towards research activities and only in the background production (for which it does not have compliant equipment) it is possible that the efforts, in conditions of obvious under funding, will be crowned by success.

An analysis of the creativity procedures and methods used shows a relatively good knowledge, but a lower use of them.

The most common technique is brainstorming, practiced in distinct forms from one research team to another, but considered particularly useful in generating a large number of solutions to a wide range of technical problems.

In the production activity, creativity often takes the form of incremental innovations and aims at the design and execution of auxiliary devices, the replacement of equipment that is lacking in equipment, technologies are constantly subject to changes designed to improve them but often to make up for some equipment shortages, accidental failures and unavailability of machinery or raw materials.

In the production activity, creativity often responds to urgent practical needs and most often springs from the experience of workers.

Access to new knowledge is also relatively low, given that the link with the scientific community is poor, participation in international scientific meetings is extremely rare, and information materials and specialist papers are lacking.

6. Conclusions

Creativity is a fundamental dimension of the human spirit and an essential factor of progress in all areas, and its study aims to decipher the complexity of the phenomenon of creation, to find methods and techniques for stimulating and capitalizing on it.

The study of creativity by various specialists is the beginning of the deepening of this complex phenomenon and the gradual removal of the mystery that has surrounded the act of creation and the great creator for centuries.

The analysis of the determinants of individual and group creativity allows a better understanding of the phenomenon in the direction of its manifestation according to the objective and at the desired time.

The industrial enterprise must be creative, constantly offer products and services that meet the demand manifested in the market, anticipate and even create un manifested needs, in order to be viable and competitive in a market in a process of globalization, in an unstable and unpredictable environment.

Scientific research and development carried out at the level of enterprises represent a favorable framework for the manifestation of creativity, these activities usually generating new ideas, discoveries, inventions that can later be the basis of innovation.

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The Role of Financial Accounting Information in an Entity

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Abstract

The paper aims to present ways to streamline and remedy the quality of financial accounting communication offered to managers. Management decisions on quantity, quality and timing of information depends on the cost and benefits of producing and disseminating accounting information. All differences in the reporting of financial and non-financial information would be generated by the gaps between the benefits and costs of the voluntary provision of information. It is often the case that entities provide more information than required by their managers, being convinced that the benefits outweigh the costs of production and financial accounting reporting. The efficiency of the decision-making process is directly proportional to the nature, quality, periodicity and volume of information that the decision-maker has at his disposal. The financial statements in particular and the financial accounting reports in general are documents that underlie a diagnosis of the financial position and profitability of the entity, they allow the determination to confirm and refute the strengths and weaknesses in the performance of all functions of the entity.

Key words: creation, expertise, inventions, opinions, evolutions
J.E.L. classification: M14, M21, M54, M55

1. Introduction

Accounting has an important role in supporting the decision-making process in the framework to an economic entity; it is no longer just a tool for quantification monetary reality, but a system that aims to provide information for decision making (the main source of information for the management of an entity).

Accounting includes certain activities that involve performing operations recording, calculation, analysis, interpretation, grouping, synthesis and preparation of information for decision making, provides managers with information in order to perform three functions managerial: planning, control and evaluation.

The phenomena of growth and globalization have led to a sharp increase in the need for financial information.

2. Literature review

In the opinion of Prof. J. Richard (1992) the construction of an accounting information system can only be the result of an economic, political, social, legal constraint of the balance of power that is established between the users of accounting information and of the way of normalization and conceptualization of accounting.

Benard Colasse (1995) analyzes the main systems of accounting standardization and regulation, noting that the differences between these systems are due in particular to: the legal framework, the economic system, the level of development of a country and the links between accounting and taxation.

Richard Mattessich (1995) considers that accounting is not a late research and analysis of the past and also "the mechanism for regenerating ideas has been blocked", which has led to a lack of regular innovations.

3. Research methodology

Financial - accounting instruments are those that link economic activities and decision makers, and in order to make correct and effective decisions the manager must have well-synthesized information, information on the basis of which to be able to define its objectives, to be able to analyze the results.

The main means of transmitting accounting products is represented by situations annual financial statements, the information disseminated being obtained following the representation of reality economic development of the entity, by using a specialized language and rules and principles specific.

In addition to financial statements, managers track and consult other reports less standardized reports such as: reports containing economic and financial indicators, information from management accounting.

The tools used by managers in managerial decisions, actions and analyzes are quite diverse, complex and include: financial accounting information, information non - financial, economic and financial analysis, financial statements, and revenue budgets expenses, dashboard, auditors 'reports, auditors' reports, accounting information management, business plan, market research, etc.

Economic and accounting information must be as comprehensive, complete, objective as possible, provided periodically, in a form that allows quick and correct decisions to be made presented to management as soon as possible, to be accurate, relevant and cost as much smaller.

Some managers want daily and weekly reports on the value of salaries, sales and production costs, I want the daily transmission of records related to invoices and sales orders for each outlet (if applicable) and sales orders sale of each production point.

Reporting is a process that allows administrators to find out what's going on within the entity through information circulated in records, reports, research or inspections.

The category of procedures specific to the accounting method also includes the checking balance.

It provides information about initial balances, movements or turnovers intervened in a certain management period and the final balances of the patrimonial elements.

Oprea, Ristea (2004) state that the Checking Balance has a particularly important role in analysis of the economic and financial situation, being the only tool that provides information necessary for the operative management of the patrimonial units.

The managerial strategy involves setting long-term goals sense the objectives of the information subsystem are:

- Establishing the way to obtain the necessary funds for carrying out the activity and using a their;
- Preparation of financial statements;
- Communicating the result to the public;
- obtaining statistical information from outside.

The value of information depends on its impact on future decisions, from where the result is a high degree of subjectivism in its interpretation and use.

In determining the value of information, it is necessary to analyze who is its user and who is the purpose for which the information is used. In choosing the sources of information cost is an important element.

Information on past financial statements and performance is used as a basis for forecast of the financial situation and future performance, of the entity's ability to take advantage of opportunities and react to unfavorable situations.

The relevance of the information also depends not only on its quality but also on its quantity their.

Sometimes too much information is provided from which it is difficult to choose the necessary ones, other times the information is insufficient.

Relevance also involves an update of information; it must arrive at the right time. Accounting is seen as an information system, comprising a set of elements (human resources, materials) that allow the collection, processing, storage and communication

Information for decision making.

The costs involved in producing accounting information could be structured as follows:

- costs of collecting accounting information;
- costs of processing accounting information;
- costs of storing accounting information;
- costs of communicating accounting information.

The organization of an accounting system is related to the way it is built and disseminated accounting information.

The accounting program is the one that provides necessary accounting reports to managers in decision making, and its quality depends largely on the detection and notification of accounting errors and the speed with which information is provided (Boiţă, Costi and Anghelina, 2014).

Accounting must record, determine, store, verify, provide and to communicate a whole series of information, proceeding to modeling and representation transactions through financial and management accounting.

The construction of accounting information starts from the observation of an entity and of assets specific to it.

The processing of data in order to obtain information is done by operating with language and the means specific to the accounting system, so that it meets the needs of users.

In the process of producing accounting information, human resources, computer materials are consumed, analyzed in the following.

By the information system we mean the set of material and financial resources that uses information technology to collect, process, store, retrieve and transmit visualize the information used in the processes that take place within the perimeter of an entity.

It is known that the basis of a modern information system is the computer system as essential component part and with a constantly increasing share.

The computer system is defined by the literature as representing a set of methods, procedures, equipment and specialized personnel that ensure the collection, verification, transmission, storage and processing of information intended for other subsystems and in particular those necessary for management to make timely decisions.

The entity is considered as an open system with inputs, processes/processing and outputs and with its own self-control system.

The accounting information system covers with information all the other components of information system.

It is known that accounting information represents over 40% of existing information/used in an entity which leads us to the idea that the lack of accounting information in the other subsystems of the entity entail an information imbalance.

The fundamental objective of accounting will be to provide useful information for the purpose making the decision to invest. In this sense, the accounting will be aimed at the communication of information that discloses the profitability of the entity in particular in the form of the benefit of operation. Value is always defined as the ratio of quality to cost.

The main purpose of financial communication is to reduce the cost of capital and maximizing the value of the entities, this also ensures compliance following objectives: increasing the degree of involvement of shareholders as owners, valorization the course of actions as an effect of the quality of information and financial communication, the development of the image and prestige of the entity, of its services.

4. Case study

The main users of accounting information are the shareholders/associates and administrators of the entity, the State (through its authorized institutions), the Banks.

In the present case, the following are considered:

■ Types of expenses: Raw materials Auxiliary materials Unstocked fuel Utilities Goods Maintenance and repairs Rents Third party services Salaries Taxes;

■ Income tax;

■ Types of income: Sale of finished products Revenue services Rental income Sale of goods On September 29, year N, a company sells finished products worth 100,000 lei.

We consider VAT 19%, fiscal period the quarter, income tax 3% whose declaration period is the quarter, declared non-payment of VAT related to rents

There are several methods to record this income depending on the beneficiary of the information and depending on the interest of the operative management of the entity, respectively:

1. If the entity wishes to reflect the operation on time and to constitute the delivery fees (Table 1)

The invoice will be drawn up in full, at the date of the products leaving the unit, ie on September 29, year N. The related management decrease will be made according to the products leaving. The result will be determined on September 29, year N. The VAT calculated for the amount of 100,000 lei will be due to the state

2. If you wish to obtain a deferral of the payment of VAT related to this income (Table 1)

A notice will be issued to accompany the products on September 29, year N, a document with which the buyer will receive the goods, the expense with the decrease from the management will be made on the date of the notice. The invoice will be issued on October 1, year N.

The VAT calculated related to the amount of 100,000 lei will be due to the state on December 31, year N with payment term until January 25, year N 1.

Similarly, the income tax on micro-enterprises is determined due to the state on December 31, year N, with the payment term until January 25, year N 1.

3. If you want to defer the payment of VAT and income tax to micro-enterprises (Table 1)

It is desired to collect the goods in advance, on September 29, year N, the delivery of the goods is made on October 1, year N. The proforma invoice will be drawn up, and on 01.10.N a certain invoice will be made.

Table no. 1. Payment of VAT and income tax to micro-enterprises

DOCUMENT TYPE	**VAT PAID ON 25.10.N**	**PAYMENT DATE ON 25.10.N**	**VAT PAID ON 25.01.(N+1)**	**PAYMENT TAX ON 25.01.**(N+1)
Fiscal bill	19.000	3.000	0	0
Notice	0	3.000	19.000	0
Proforma	0	0	19.000	3.000

Source: author processing

4. Revenues from rents collected based on the proforma invoice (Table 2).

If on 25.09.N you want to collect the rent in advance for 3 months in the amount of 15,000 lei, but you do not want to set the tax on the date of collection, then the proforma invoice will be made and the income will be accounted as income in advance.

The fiscal invoice will be drawn up at a later date, respectively 25.10.N. The collection in the bank from the client will be registered. A subsequent tax will be established.

5. Revenues from rents collected based on the fiscal invoice (Table 2).

Fiscal invoice drawn up on 25.09.N.

Table no. 2. Income from rents received

DOCUMENT TYPE	PAYMENT TAX ON 25.10.2020	PAYMENT TAX ON 25.01.2021
Invoice	0	450
Fiscal bill	450	0

Source: author processing

6. Interpretation of income and expenses (Table 3).

Certain income and expenses can be interpreted as income or expenses recorded in advance. This fact significantly influences the profit of the unit, as class 4 accounts are used. For example, income from rents for which the related fiscal invoice was prepared for 6 months in advance, value 6,000 lei.

7. Influencing the profit and loss account by recording expenses (Table 3):

a) Auxiliary materials, if they are of low value, and do not exceed the significance threshold established by the company's management, may be storable or transferred to expenses at the time of acquisition, recommended value max. 100 lei;

b) The fuel can be spent on expenses together with the number of kilometers traveled or on the date of its acquisition, recommended value max. 200 lei;

c) The inventory objects, these can be kept in the stock account (ct. 303), as long as the management of the company considers the word, provided that these goods are not damaged, max. legal value 2,500 lei;

d) Maintenance and repairs can be accounted for as ongoing an investment, which means that they will not affect the profit and loss account, is they will directly influence the profit at the date of execution of the works;

e) Expenses with rents for which the fiscal invoice related to 3 months was received in the amount of 4000 lei.

Table no. 3. Accounting information

NAME	MAXIMUM PROFIT	MAXIMUM LOSS
Revenues accounted for in advance, class 4		6000
Revenue accounted for in class 7	6000	
Expenses accounted for in advance, class 4	4000	
Accounting expenses class 6		4000
Auxiliary material account 302	100	
Auxiliary material account 602		100
Fuel account 3022	200	
Fuel account 6022		200
Account Inventory Items 303	500	
Account Inventory Items 603		500
Account maintenance and repairs 231	25000	

Account maintenance and repairs 611		25000
Profit and loss	+6000	-29800

Source: author processing

The table above shows that the interpretation and use of accounting information resulting from supporting documents may have the most important role in the outcome of an entity's activity.

The final result obtained from accounting can be influenced by the role that accounting information has on the beneficiaries.

5. Conclusions

Even if financial statements are considered the main means of transmission of financial accounting information to users however these due to the fact that they use a specific and sometimes difficult to understand language, complex accounting terminology, formalized language of businesses, have lost ground to other tools more accessible to managers such as: dashboard, audit reports, etc.

An indispensable tool, more accessible to them, is the dashboard, the one that synthesizes the information (it is designed as a centralizer of information) necessary for taking decisions and informing decision makers about how phenomena evolve specific to the activity conducted, directs their attention to the key points to be monitored.

With the help of tables and diagrams, the targets are decided and validated achievements compared to forecasts, measures the road traveled, but also the one left to achieve the objectives and takes out highlight the sensitive points of the activity to be analyzed.

The decision-making process and its quality is also influenced by skills, preparation and the involvement of the decision maker.

In conclusion, the decision is a means by which the objectives of the entity are achieved, through it the evolution of the entity is directed, it is a social, rational act of a persons or a group by which the purpose, objective of an action and the modalities are established realization according to a certain need.

The conclusion is that the accounting information provided through specific instruments it is useful if it helps in making managerial decisions.

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The Use of a Simplified Markowitz Model in Choosing a Profitable Portfolio

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Abstract

The aim of this research is to improve investment processes in the capital market, so that the decisions taken are the best, at the best time and at the best price in line with the risk factor. In this paper we present a simplified model of Harry Markowitz, using Microsoft Excel. By gathering public data on the shares of selected companies as being in the current economic trend, over a period of 6 months, we are able to make a prediction of the amount of these shares in a profitable portfolio using the Markowitz model.

For the portfolio manager, it is sufficient for the client investor of the respective investment fund to formulate concretely its requirements regarding the minimum accepted return level and the model allows the identification of such a portfolio structure that determines the obtaining of this level of the indicator in minimum risk conditions.

Key words: portfolio, Markowitz, return
J.E.L. classification: G11

1. Introduction

One of the most scientifically recognized models of finance is the one developed by Harry Markowitz [1952] considered by many specialists as the founder of modern finance. The model offers a solution for the efficient management of the portfolio, for the rational investors characterized by risk aversion (quantified by dispersion of the expected return), in the conditions in which they request to obtain a certain return.

In order to identify the levels associated with the estimated profitability and the risk associated with this anticipation, one can use either the scenario technique or one can accept the strong static hypothesis.

It must be remembered that the modern theory of the portfolio owes to the American professor the definition of risk through the dispersion of profitability. Specifically, the portfolio manager associates with the future evolution of a security a certain return and a certain risk, quantified by the quadratic mean deviation of this return. Based on these indicators, a certain structure of the portfolio can be determined so as to obtain a level of return (the one requested by the client investor) in the conditions of a minimum risk or, analogously, to obtain a maximum return in the conditions of an accepted risk.

2. Theoretical background

The field of the capital market has a vast specialized literature. We will remember the most important works that helped us to elaborate this work in the rows below.

Livia Ilie published in 2007 at the Continent Bucharest Publishing House, the book entitled "Piața de capital".

In 2008, Duțescu Cristian published at C.H. Bech, Bucharest, the book with the title "Manipularea pieței de capital".

In 2011, Dobre Baron Oana, Muntean Liliana published at the Petroșani University Publishing House, the book entitled " Gestiunea portofoliilor de titluri ".

Lipara Carmen published in 2012 at ASE Bucharest Publishing House, the book entitled "Evaluarea acțiunilor: o abordare din perspectiva teoriilor comportamentale ".

Tutuianu Adrian published in 2007 at Hamangiu Publishing House Bucharest, the book entitled "Piața de capital. Regimul juridic aplicabil participanților ".

In the following we will also mention important foreign authors.

Markowitz M. Harry published the book "Portfolio selection: efficient diversification of investments" at Blackwell Publishing House, Malden, in 1991.

Daniel A. Strachman published in 2002 at Wiley Publishing House, the book entitled "Essential Stock Picking Strategies".

Brentani Christine published in 2004 at Elsevier Publishing House, Oxford, the book entitled "Portfolio management in practice".

To describe the Markowitz model hypothesis exemplified in this paper we can list three important criteria of the Markowitz model:

a) The selection criterion for effective combinations of "n" securities is "hope - dispersion" (return-risk).

b) All the "n" securities are risky, characterized by a certain hope of profitability (Ei), dispersion (σii) and covariation with each of the other securities in the portfolio (σij).

c) Expected return on portfolio (E*p) it is a variable exogenous to the model, being provided by investors.

The structure of the portfolios on the Markowitz (Markowitz, 1991, p. 281) border will be determined by minimizing the risk of the portfolio under some restrictions determined by the model assumptions:

- Budgetary constraint, which requires that all invested capital be included in securities purchased from the portfolio: $\sum x_i = 1$ (1)
- The performance requirement of the portfolio, respectively, a certain expected profitability E*p, which is the average expected return on the securities in the portfolio: $\sum x_i E_i = E^*_p$ (2)
- Portfolio risk minimization can be done through the combined Lagrange function:

$$L = \frac{1}{2}\sum_i \sum_j x_i x_j \sigma_{ij} + \lambda_1\left(\sum_i x_i E_i - E^*_p\right) + \lambda_2\left(\sum_i x_i - 1\right) \quad (3)$$

$$\begin{bmatrix} \sigma_1^2 & \sigma_{12} & \cdots & \sigma_{1n} & E_1 & 1 \\ \sigma_{21} & \sigma_2^2 & \cdots & \sigma_{2n} & E_2 & 1 \\ \vdots & & & & & \\ \sigma_{n1} & \sigma_{n2} & \cdots & \sigma_n^2 & E_n & 1 \\ E_1 & E_2 & \cdots & E_n & 0 & 0 \\ 1 & 1 & \ldots & 1 & 0 & 0 \end{bmatrix} \cdot \begin{bmatrix} x_1 \\ x_2 \\ \vdots \\ x_n \\ \lambda_1 \\ \lambda_2 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ \vdots \\ 0 \\ E^*_p \\ 1 \end{bmatrix} \Leftrightarrow X = W^{-1} \times K \quad (4)$$

W x X = K

$$\begin{bmatrix} \sigma_1^2 & \sigma_{12} & \cdots & \sigma_{1n} & 1 \\ \sigma_{21} & \sigma_2^2 & \cdots & \sigma_{2n} & 1 \\ \vdots & & & & \\ \sigma_{n1} & \sigma_{n2} & \cdots & \sigma_n^2 & 1 \\ & & & & \\ 1 & 1 & \dots & 1 & 0 \end{bmatrix} \cdot \begin{bmatrix} x_1 \\ x_2 \\ \vdots \\ x_n \\ \\ \lambda_1 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ \vdots \\ 0 \\ \\ 1 \end{bmatrix} \Leftrightarrow X = W^{-1} \times K \quad (5)$$

W x X = K

The data is used to determine the composition of PVMA.

Thus, the weights of the various securities in the expected return portfolio become known E*p located on the efficient Markowitz border and the risk of this portfolio can also be found.

$$\sigma^2{}_p = \sum_{i=1}^{n} \sum_{j=1}^{n} x_i x_j \sigma_{ij} \quad (6)$$

3. Research methodology

The methodology usedin this paper is based on documentary, bibliographic and theoretical research, as well as analyzes from practical, specific activity in the field of capital markets, at national and European level. During the research, qualitative research methods were used to collect data, such as observation and case study. At the same time, quantitative methods based on deductive processes were used, through which theories were verified, producing results that could be generalized. Thus, starting from the identification of the problems and to their evaluation, it is necessary to have a complementarity between the quantitative and qualitative methods, because with the help of the case study and the studied content analyzes the obtained results can be developed, disseminated and consulted.

To simulate a portfolio in our case study we chose the companies BRD Groupe Societe Generale S.A., Banca Transilvania S.A., Turbomecanica S.A. and S.N. Nuclearelectrica S.A. The companies were chosen from different sectors for a wider diversification of the model.

In the first stage, the quotations of the companies were collected for a period of 6 months.

In the next step, the daily quotation yields were calculated in order to calculate an average return on the shares of each company.

Following the construction of the covariance matrix, the inverse of the covariance matrix was then performed in order to find out the minimum variance point of the portfolio chosen by us.

A simulation of the proposed returns was performed in accordance with the point of minimum variance in order to achieve a profitable portfolio.

Following the model, some simulations were performed with a proposed return of 35%, 55% and 75%, finding the share of each element in the portfolio that is necessary for the investment in question.

The formulas used in Microsoft Excel for the values obtained were:

E=(E1-E2)/E3

=covar()

=minverse()

=mmult()

=average()

Table no. 1. Markowitz Model

	Rentabilittate medie E						
BRD	TLV	TBM	SNN				
-0,11%	-0,05%	0,23%	0,24%				
	Matrice de covarianță						
	BRD	TLV	TBM	SNN			
BRD	0,000816	0,000722138	0,000163001	0,000236604	1		
TLV	0,000722	0,000923436	0,000210231	0,000271722	1		
TBM	0,000163	0,000210231	0,000392937	0,000155089	1		
SNN	0,000237	0,000271722	0,000155089	0,00055912	1		
	1	1	1	1	0		
	Invers matrice de covarianță						
BRD	3832,098	-3022,849526	-359,5456119	-449,7032697	0,221885752		0
TLV	-3022,85	3706,695573	-421,9790343	-261,8670133	-0,08011339		0
TBM	-359,5456	-421,9790343	1968,204912	-1186,680266	0,557980656		0
SNN	-449,7033	-261,8670133	-1186,680266	1898,250549	0,300246982		0
	0,221886	-0,08011339	0,557980656	0,300246982	-0,000285141		1
	Punctul de variație minimă absolută				PVMA		
BRD	0,221886	0,221885752	0,221885752	0,221885752	0,221885752	x1	
TLV	-0,080113	-0,08011339	-0,08011339	-0,08011339	-0,08011339	x2	
TBM	0,557981	0,557980656	0,557980656	0,557980656	0,557980656	x3	
SNN	0,300247	0,300246982	0,300246982	0,300246982	0,300246982	x4	
	-0,000285	-0,000285141	-0,000285141	-0,000285141	-0,000285141		
	Simulare rentabilități propuse						
	Ep	x1	x2	x3	x4		
Epvma=	0,18%	22,18%	-8,01%	55,79%	30,02%		
Em=	0,54	34,17%	3,69%	85,93%	46,24%		
	1,00%	22,41%	7,93%	56,36%	30,32%		
	1,05%	22,42%	7,93%	30,34%	30,34%		
	3%	22,85%	7,77%	57,47%	30,93%		
	Modelul markowitz in formă matriceală						
	0,000816	0,000722138	0,000163001	0,000236604	0,54	1	
	0,000722	0,000923436	0,000210231	0,000271722	1	1	
	0,000163	0,000210231	0,000392937	0,000155089	1,05	1	
	0,000237	0,000271722	0,000155089	0,00055912	3	1	
	0,54	1	1,05	3	0	0	
	1	1	1	1	0	0	

Source: realized by the author based on data from www.bvb.ro.

Table no. 2.Continuation of the Markowitz Model

	Rentabilitate propusă 0.35%							
	3035,333	-2771,443091	-986,6837271	722,7937084	-0,297283946	0,675637835		0
	-2771,443	3627,368329	-224,0957202	-631,8295179	0,093803153	-0,223287539		0
	-986,6837	-224,0957202	1474,581235	-263,8017881	-0,233993742	0,915131284		0
	722,7937	-631,8295179	-263,8017881	172,8375976	0,437474536	-0,36748158		0
	-0,297284	0,093803153	-0,233993742	0,437474536	-0,000110921	0,000169301		0,35
	0,675638	-0,223287539	0,915131284	-0,36748158	0,000169301	-0,00054355		1
	Rentabilitate propusă 0.35%							
BRD	0,571588	0,571588454	0,571588454	0,571588454	0,571588454	0,571588454	x1	
TLV	-0,190456	-0,190456435	-0,190456435	-0,190456435	-0,190456435	-0,190456435	x2	
TBM	0,833233	0,833233474	0,833233474	0,833233474	0,833233474	0,833233474	x3	
SNN	-0,214365	-0,214365493	-0,214365493	-0,214365493	-0,214365493	-0,214365493	x4	
	0,00013	0,000130479	0,000130479	0,000130479	0,000130479	0,000130479		
	-0,000484	-0,000484294	-0,000484294	-0,000484294	-0,000484294	-0,000484294		
	Rentabilitate propusă 0.55%							
	3035,333	-2771,443091	-986,6837271	722,7937084	-0,297283946	0,675637835		0
	-2771,443	3627,368329	-224,0957202	-631,8295179	0,093803153	-0,223287539		0
	-986,6837	-224,0957202	1474,581235	-263,8017881	-0,233993742	0,915131284		0
	722,7937	-631,8295179	-263,8017881	172,8375976	0,437474536	-0,36748158		0
	-0,297284	0,093803153	-0,233993742	0,437474536	-0,000110921	0,000169301		0,55
	0,675638	-0,223287539	0,915131284	-0,36748158	0,000169301	-0,00054355		1
	Rentabilitate propusă 0.55%							
BRD	0,512132	0,512131664	0,512131664	0,512131664	0,512131664	0,512131664	x1	
TLV	-0,171696	-0,171695804	-0,171695804	-0,171695804	-0,171695804	-0,171695804	x2	
TBM	0,786435	0,786434725	0,786434725	0,786434725	0,786434725	0,786434725	x3	
SNN	-0,126871	-0,126870585	-0,126870585	-0,126870585	-0,126870585	-0,126870585	x4	
	0,000108	0,000108295	0,000108295	0,000108295	0,000108295	0,000108295		
	-0,00045	-0,000450434	-0,000450434	-0,000450434	-0,000450434	-0,000450434		
	Rentabilitate propusă 0.75%							
	3035,333	-2771,443091	-986,6837271	722,7937084	-0,297283946	0,675637835		0
	-2771,443	3627,368329	-224,0957202	-631,8295179	0,093803153	-0,223287539		0
	-986,6837	-224,0957202	1474,581235	-263,8017881	-0,233993742	0,915131284		0
	722,7937	-631,8295179	-263,8017881	172,8375976	0,437474536	-0,36748158		0
	-0,297284	0,093803153	-0,233993742	0,437474536	-0,000110921	0,000169301		0,75
	0,675638	-0,223287539	0,915131284	-0,36748158	0,000169301	-0,00054355		1
	Rentabilitate propusă 0.75%							
BRD	0,452675	0,452674875	0,452674875	0,452674875	0,452674875	0,452674875	x1	
TLV	-0,152935	-0,152935174	-0,152935174	-0,152935174	-0,152935174	-0,152935174	x2	
TBM	0,739636	0,739635977	0,739635977	0,739635977	0,739635977	0,739635977	x3	
SNN	-0,039376	-0,039375678	-0,039375678	-0,039375678	-0,039375678	-0,039375678	x4	
	8,61E-05	8,61106E-05	8,61106E-05	8,61106E-05	8,61106E-05	8,61106E-05		
	-0,000417	-0,000416574	-0,000416574	-0,000416574	-0,000416574	-0,000416574		

Source: realized by the author based on data from www.bvb.ro.

In a financial market where the criterion of risk-return is the one accepted in the choice of investments, Markowitz points out that all investors, as long as they are rational and characterized by risk aversion, will invest in a set of portfolios characterized by a specific risk-return relationship. (Raj S., 2019, p. 233)

As the American professor, winner of the Nobel Prize for Economics in 1990, points out, the portfolio selection process can be structured in two stages. The first stage begins with the observations made on the securities and ends with the estimation of future performances associated with the securities available on the financial market. The second stage starts from these values associated with future performance indicators and ends with the selection of a specific portfolio.

4. Findings

Therefore, following the elaboration of the model, the values of the weights in the portfolio of the shares x1, x2, x3, x4, are presented in the last summary table no. 3

Table no. 3. Weights to simulate expected profitability

Rent aștep. E*	x1	x2	x3	x4
35,00%	57,16%	-19,05%	83,32%	-21,44%
55,00%	51,21%	-17,17%	78,64%	-12,69%
75,00%	45,27%	-15,29%	73,96%	-3,94%

Source: realized by the author based on data from www.bvb.ro.

In order to identify the levels associated with the estimated profitability and the risk associated with this anticipation, one can use either the scenario technique or one can accept the strong static hypothesis. The first method has the advantage of a possible more adequate perception of the reality on the financial market on which the securities in which it invests operate, but creates difficulties for the manager in arguing his decisions, characterized in this case by a significant degree of subjectivism. Given the decision-making under the strong static hypothesis, although decisions can be considered "objective", in the sense that they can be easily justified, we can not but raise the issue of the relevance of past indicators on predictions, obviously related to the future. (Waldemar et al, 2019, p. 125)

A solution could be given by estimating a certain future return and quantifying the risk associated with this estimate by dispersing or deviating the square mean of the historical returns over an acceptable time frame in terms of modeling needs.(Robert G., 2015, p. 178)

5. Conclusions

Developing a solid investment process is a personal challenge for investors. To create an effective investment plan, the investor needs to look to the best investors in the world, the true masters. They must be chosen and studied with great care; reading and listening to them and trying to gather as much as possible from them. This is how a successful investor approaches this vast economic field. This approach is refined by the experience of the investor's daily life that helps him in his investment approach. This is how the investor develops strong and coherent beliefs that allow investors to be brave and turn their backs on the herd, being patient and accepting uncertainty and finally keeping their minds clear when those around them are agitated.

Markets work reasonably well because they are just exchanges between people who act freely. Some market participants or others will always recognize when there is a disorder in the market, and through their actions they will address it.

It provides us with a basis for approaching the investment process, which aims to add value that others will not see or cannot see. Real estate assets, especially the shares of listed companies, are the best for maintaining the purchasing power of our savings in the long run.

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Considerations Regarding the Need for Normalization in Accounting, in Public Institutions

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Abstract

Various techniques, methods and processes have been developed in Romania that respect the basic accounting principles and through which entities can provide real and complete information to different categories of users in order to make decisions. All accounting rules required, through state intervention, necessarily by a legal rule are accounting regulations which must be observed, both for the preparation and presentation of accounting information, with the help of professional accountants, by assuming responsibility toward the public as a result of professional judgment. This work covers issues relating to the need for professional judgment, in accounting, including in the case of accounting policies and changes, legislative provisions and, in this respect, ways of implementing them and presenting information.

Key words: Professional judgment, changes in accounting policies, local public administration.
J.E.L. classification: M41

1. Introduction

Globalization has a significant influence on the increasing complexity of the economic and financial activity of entities and the situations that they have to cope with. As a result, various techniques, methods and processes have been developed which comply with the basic accounting principles and through which entities can provide real and complete information to different categories of users for decision-making purposes.

The issuance of accounting rules is a social decision, or where appropriate the individual or simultaneous product of a political action, logical reflection or empirical outcome.

In Romania, a major impact is the emergence of accounting law No 82 of 1991, which established a new account plan and a financial reporting system. The accounting, according to that law, "must ensure chronological and systematic recording, processing, publication, transparency and retention, archiving information on financial position, financial performance and cash flows, for disclosure to users of information". Therefore, accounting shall communicate specialized information to a clearly defined market after recording, quantifying, processing and preserving accounting information.

We can appreciate that there is a fundamental objective in the accounts (the real picture), and the possibilities for realization are shaped by the contribution of accounting professionals as a result of the professional judgment. Thus, the three elements involved in the management decision (Nicolescu and Verboncu, 2007, p. 208) I am the decision maker, the accounting professional, who ensures that he has met judgment requirements for decision-making, that he has made an appropriate selection of principles, rules and practices applied in preparing and presenting financial statements, and that he has made the best estimates.

In this context, the importance of cohabiting professional accountants with decision-making factors at the organizational level is justified, as well as professional judgment and some procedures to exercise it in public institutions in terms of accounting policies and estimates, determine the effects and presentation of information. in the notes to the financial statements.

2. Literature review

The problem of accounting professionals' judgment and their exercise in accounting influences the quality of accounting information. The information values of accounting should be recovered and exploited in an integrated communication process with management systems and internal control, the external environment and the underlying strategic guidelines.

A logical circuit of any human action is identified in the fundamental functions of the the management process that can be successfully carried out only on the basis of the relevant information, received over time (Leustean, 2012, p. 6).

As an area of activity, accounting is research-focused, specific methods are important for the accounting profession and it is indiable to attract the best professionals (Albu, 2012, p. 6-11).

Accounting is science-based, but it is not a precise science, because the relevant acquisition of information requires professional judgment for each case. Users believe that the field of accounting matters most.

The undisputed accounting privilege is that it provides modern management with a multiple of accounting information (Horomnea, 2011, p.22). Management must seek balance between relevance and reliability, since an accounting standard is a specific element that has a cultural component in its development.

In our view, the assumption of perfect knowledge is illusory, for technical and economic reasons. The information helps to reduce the uncertainty and complexity of actions, highlighting the possibilities and limitations of alternative solutions. If there is freedom and respect, there must be professional judgment, because accounting is a pattern of representation of reality, but of an economic, legal, real nature, which is constantly evolving (Ionascu, 1997, p. 136). Accounting means increasing the dependence on the correct values, when these values can be established with precision.

In addition, the professional judgment and experience of those who issue the accounting information are crucial to accounting standardization, based on principles and conventions (Ionascu, 2003, p. 118). Professional judgment is based on ethical behavior, theoretical and practical knowledge, leading to performance in the effective management of public financial resources.

3. Research methodology

The research undertaken is aimed at a combination of deductive and inductive research and provides an approach to the involvement of professional judgment in the accounting of public entities, in the choice and observance of accounting policies, accounting standards and estimates, which are theoretically debated. The research carried out shall respect the methodology of research into economic sciences, as it is subject to the limits of research in time and space.

Also, during this paper we meet interpretive elements, addressed from a neutral point of view, but also critical elements, because we approach different concepts, regulations and practices in the field, in a critical manner, getting involved through a personal opinion.

The main sources of documentation we used for scientific research were made by studying the literature in the field, consisting of books by Romanian and foreign authors, articles recognized in international databases, regulations in force, websites, accounting documents which addresses the issue studied.

As research techniques we mention the analysis of the used literature, the analysis of the national legal framework regarding the accounting policies and the accounting in the public sector.

The scientific approach is positivist, the research being oriented towards the accounting field, formulating explanations for the valences of professional judgment and changes in policy and accounting estimates, implications resulting from the presentation of information in public institutions to improve practical accounting.

In terms of finality, the research is both explanatory (as a method of collecting data, documents) and investigative, exploratory, of the role and necessity of the professional accountant in the action of changing accounting policies and estimates.

The scientific research is motivated by the importance of the quality of the financial-accounting information generated for the interested users, in our case for the local public administration authorities, implicitly the increase of the performance.

4. Findings

The essential factor that imposed the normalization of accounting is the increase of the social role of accounting information in the elaboration of economic decisions.

The accounting method, in order to achieve its purpose, uses a series of procedures and rules that allow the provision of information on economic phenomena and processes that take place within the entity.

In the elaboration of the accounting norms is taken into account what implies a conceptual or deductive approach, according to which the principles are justified by a reasoning and the pragmatic side, which starts from experiences or tradition (Ristea and Dumitru, 2004, p. 9) in order to establish the norms.

The accounting norms are presented before the accounting process in the form of principles, accounting policies, procedures, they constitute a reference system for the performance of the financial statements by accredited professionals. The normalization process aims to apply uniform accounting rules in the same geopolitical space. All the accounting norms imposed, through the state intervention, obligatorily through a legal norm are accounting regulations that must be observed both for the elaboration and for the presentation of the accounting information.

The formulation of accounting policies is recorded (Jalbă, 2010, p.203) within the generally accepted principles and conventions, dependent on the true image, as a fundamental objective of accounting. Undoubtedly, in a standardized and regulated accounting, the system of norms and regulations comes into play. Concretely, in the public administration, the accounting policies are elaborated and assumed by the head of the entity or the patrimony administrator.

Variables able to determine accounting policies in the choice and application of methods include, in particular, the distinction between income and liabilities, expenses and assets, depreciation, provisioning and reversal of provisions, valuation of fixed assets and inventories, accounting for long-term contracts, consolidation methods and analytical results, accounting for leasing contracts. The ordering and formalization of the accounting policies, at the level of the entity, can be concretized by a disposition of the head of the entity, and their disclosure can be made in explanatory notes or as an annex to the financial statements. As a result, accounting standardization through similar rules and terminology leads to an identical presentation of the financial statements for all institutions and to an assurance of users, in terms of consistency and rigor with which the accounting was performed.

The objectives of accounting normalization aim at elaborating the chart of accounts and the monograph of the main economic-financial operations, establishing the model for presenting the financial statements, establishing the principles of accounting, defining the information presented, developing a unitary terminology.

Regarding the reporting period, the shorter it is (for example, monthly financial statements), the more difficult it is to determine the values of assets and liabilities, income and expenses, as a result of subjective reasoning, which makes monthly reports to be less reliable compared to quarterly and annual reports. The Handbook of Accounting Policies and Procedures is a necessary and mandatory working tool for each entity to establish the conditions under which certain operations that have an impact on the entity's accounting are carried out, as a protector in the accounting relations with external users of the situations financial.

The freedom to choose the accounting policies and the accounting treatment to be applied in the presentation of the financial position and financial performance, remains at the choice of the public institution.

We can say that in the process of accounting normalization we operate with certain specific concepts, of which the most classic are the accounting rules, postulates and principles. They are based on a wide acceptance, and in our opinion represent a set of theoretical statements, which apply to accounting, seen as a representation of a reality.

In conclusion, if the entity's accounting policy is developed on the basis of the fundamental accounting conventions, they may not be published in the financial statements, but must be accompanied by a written statement from the authorizing officer, certifying compliance with approved accounting policies, the institution, in preparing the annual financial statements. In the case

of accounting policies based on conventions that differ from those provided for in that standard, together with the reasons for their application and their valuation in value terms, they must be presented in detail in the financial statements. The disclosure of accounting policies does not exonerate the management of the entity responsible for violating the established rules of accounting or the erroneous reflection of information in the reports. Users can assess whether the chosen accounting policies are appropriate following their effect on the results for the reported period and the future.

As a result of the inherent uncertainties, some elements of the annual financial statements cannot be accurately measured, but only estimated (non-performing debts, stock validity, benefits).

Therefore, the professional accountant, based on the recent and reliable information available and the professional reasoning, estimates the priority element, which can present subjectivism in the interpretation of the information. We can appreciate that in making accounting estimates a high level of specialized knowledge, experience and professional judgment is required. However, in order to create information and ensure its transparency, we should not limit ourselves to rules and definitions that could be challenged.

The role of the professional accountant in accounting is to make realistic approximations, based on a high degree of competence and professional value, and also ensures the achievement of information in decision making, an important factor influencing the socio-economic environment.

5. Conclusions

In the decision-making process, the satisfaction of the citizens is an objective of any activity of the local public administration, therefore, the importance of accounting on the social environment should be appreciated, as quality financial accounting information is required. Accounting information presented in a clear and concise manner without significant errors must be relevant to users and help them to assess events from different reporting periods, and also to face their own assessments, confirming or correcting them.

The need for professional judgment in accounting is mandatory to assist decision makers in making the necessary decisions including those on changes in accounting policies or revising estimates. Why? Because it is a process that involves taking responsibility for users. Through the audit activities performed at public institutions and authorities, the continuous improvement of professional accountants is promoted, and at the same time the professional reasoning is evaluated.

In the process of normalizing accounting through similar rules and terminology, a uniform presentation of financial statements is made, and the authorizing officer, by written declaration, certifies compliance with the approved accounting policies at the institution level, and also ensures that the data presented in the statements consolidated financial statements reflect the true picture of reality. The need for information is diversified, and in this context the accountant must find urgent solutions adapted to the new information requirements, which will favor the image of the public institution without conflicting with the law.

The existence of various uncertainties in which the entity operates, makes many items in the financial statements can not be measured, but only estimated. In this context, the entity's management options for one of the multiple accounting treatments and policies do not converge to a true picture of reality, but rather to a convenient image.

In this case, the quality of the financial accounting information becomes distorted and raises doubts about the comparability and consistency of the information provided to users.

Depending on the interests pursued by the management of the entity and the legal, economic and financial innovations, for which the normalization has not found solutions, still, the results of the financial statements can be modeled and opportunities towards subjectivism can be created. The accounting information fails to fulfill its assigned functions, only partially, even if the standardization bodies give a special importance to the synthesis documents.

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The Impact of Information and Communication Technologies in the Sphere of Public Administration

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Abstract

The contemporary evolution of accounting has led to the development of an it system that supports the harmonization of relations between citizens and public authorities, while respecting the fundamental right of citizens to access public information. The implementation of information and communication technologies means improving the quality of public services, allowing citizens easier access to these services and making the activities of public authorities more efficient and transparent. The aim of digital governance, in local public administration, is to contribute to efficiency gains, cost savings in the Romanian public sector by modernizing, digitizing public administration, providing access to ICT equipment, facilitating social inclusion, increasing digital literacy and improving digital skills.

Key words: information technology, digital governance, accounting information system.
J.E.L. classification: M41

1. Introduction

The contemporary evolution of accounting has led to the development of an information system that connects all the organizational structures of local, county and central public administration, and in which the accounting information system is the basic component. It meets the information requirements of other departments as well as external factors. Information technology helps support decision-making processes as well as involvement in working groups, which increases perfusion.

The information system supports the harmonization of relations between citizens and public authorities, respecting the fundamental right of citizens to access public and public information. The implementation of the information system requires improving the quality of public services, making it easier for citizens to access these services and making the activities of public authorities more transparent.

The ability to compete and evolve increasingly depends on the innovative and efficient application of new information and communication technologies. Public authorities make a continuous effort to achieve the integration of their information systems, to allow information to circulate freely within their systems, and thus to create an efficient administration.

Successful implementation of eGovernment requires the definition of a coherent application architecture and specific services and means for further application development, deployment and administration. This architecture needs to be updated to ensure adaptation to user requirements and emerging new technologies.

The digital transformation component, electronic government, presents a new vision in the public sector, which the Authority for digitization of Romania wishes to translate from the business environment, which refers to all the ways used by the local or central public administration to use information and telecommunications technologies, and which contributes to the harmonization of relations between citizens and public authorities, based on mutual respect and interested cooperation between the state and citizens.

The awareness of the need for new technologies by the leaders of public institutions has led to the continued adaptation of public services to the needs of citizens, providing quality, safe, fast, transparent and simple online public services.

The paper addresses issues related to the impact of information and communication technologies in the sphere of public administration, which are driving major transformations. EGovernment contributes positively to the work of public institutions by focusing on meeting the needs of public service recipients, increasing transparency, coupled with increased efficiency of public services.

2. Literature review

Government information systems bring remarkable economic benefits, as a result, stimulate economic growth by increasing the efficiency of the activities and the cost-effectiveness of the public services provided, creating a more attractive environment for investment, reducing the time needed to deliver the services, and making the best use of material and human resources.E-government requires the use of it&C technologies to improve access to public services, the procedure for taxpayers to access them, to benefit citizens, companies and employees. (Vasilache, 2008, p. 44).

E-government ensures the continuous optimization of public service delivery and the concept of new media (or online media), respecting the fundamental right of citizens to have access to official information, as required by law, in order to provide efficient public services through technology and the Internet, harmonizing the legal framework with international regulations and standards.

Decision-makers from ministries, local public administration authorities, public institutions are actively involved in the process of implementing e-government, characterized by transparency and partnership, taking into account the ideas and proposals of all parties involved.

The interaction between government, Parliament and other public institutions with citizens via electronic means is top-down (from state to citizen), through electronic means provided by the state for the exercise of citizens' fundamental rights. In a simplistic formulation, eGovernment is seen as an input, which, transformed by a number of variables (the context), is processed, changed into an output, in this case good governance, coordinated actions and resources to maximize efficiency, stimulate activities and generate accountability for the public, based on a common set of priorities. Through information technologies, the social environment can gather its knowledge coming from different geographical places and cultures, helping to develop all fields, such as scientific, economic, cultural or social.

At the same time, good e-government has a significant positive impact on human resources. We appreciate that the digitalization of public services will lead to the intellectual development of all Romanian citizens.

The new negative trends in the economy point to the importance of considering information technologies as an effective infrastructure for the implementation of new collaborative processes. Digitization proposes transforming centralized processes into distributed processes and the knowledge economy is perceived as a network economy.

Mark Zuckerberg says about Facebook that this easily starts with two people, who represent the fundamental unity of society, then expands. In this context, we appreciate that the digitization of public institutions is a long-term process that is being carried out gradually.

We believe that information and communication technologies are fundamental infrastructures connecting economic players and communities, thus supporting the exchange and knowledge flows.

3. Research methodology

The research paper presents the urgent need to use the research methodology specific to economic sciences. The complexity of economic sciences shows the need to focus research on economic and financial analysis, which is in line with financial management, financial accounting and economic it. Current exploratory research methods and techniques offer wide scope in the study of information systems and descriptive information, highlighting the information already available in this area.

The research undertaken is designed to combine research of a deductive type and inductive type, both qualitative and quantitative analysis and to offer uniqueness, the originality and understanding

of the study due to the economic particularities of the e-government debated theoretically and based on information on its implementation.

We believe that, as far as the theoretical perspective is concerned, the deductive approach is the most harmonious one, starting from the general to the private sector; that is, from the concept, the theory of digital governance to legal regulations, when it is actually carried out by public authorities. The research undertaken shall respect the limits of research in time and space.

We also meet in the course of this work interpretive elements, neutral but also critical elements, because we are addressing different concepts, regulations and practices in the field in a critical manner, engaging with a personal opinion.

We want to explain, through a detailed and in-depth approach, the different sides of digital governance, in public administration and how the growth of e-government services can contribute to efficiency gains and cost savings in the Romanian public sector by modernizing, digitizing public administration, Providing access conditions to ICT equipment, facilitating social inclusion, digital literacy and digital skills upgrading.

The fundamental objective of work a is to highlight the role of digitalisation in the governance process, for faster and more sustainable development. We have thus set out the concept of e-government, which has the effect of modernizing the public sector in order to provide public services to citizens and businesses in a transparent and secure way.

The foundation of the research was accomplished by studying the specialist literature in the field, made up of books of Romanian and foreign authors, articles recognized in international databases, normative acts in force, websites, accounting documents that address the studied issue.

4. Findings

In the digital age, the ability to connect can be seen as synonymous with the ability to exercise your right to association. For this reason, digital governance is part of the solution to bridge the gap between the public and the political environment. Digital governance is about exploiting the opportunities offered by information and communication technology, supported by the information system that has a cyber-system character.

E-government also aims to bring together a number of interests, including: Transparency, enabling citizens to follow up the requested requests in the system, operational problem-solving, extensive use of the various e-services, development of citizens through information, interaction and transaction.

In the digital environment, people and economic entities need to feel protected. Trust and security, including the protection of personal data, are fundamental to the smooth functioning of digital governance. The ability to compete and evolve increasingly depends on the innovative and efficient application of new information and communication technologies. Public authorities make a continuous effort to achieve the integration of their information systems, to allow information to circulate freely within their systems, and thus to create an efficient administration.

The aim of e-government is to establish a transparent distinction between services monitored at national level, along the lines of the European model. A set of 20 services, 12 for citizens and 8 for economic operators is being monitored at national level, which are currently a priority for e-government and which aims to increase coverage for different categories of services, and also to increase the quality of services provided.

The following it systems of national interest are currently being operated:

- National Electronic payment System Online (SNEP), the counter.ro, extended to introduce a new possibility of payment for the obligations due to the consolidated budget, for legal persons and other entities without legal personality. One of the most well-known public services provided by e-government is the electronic submission of specific taxes received by public institutions.

- The Single Electronic Contact point (PCUe) information System, designed as a catalog of all public services provided at central and local public administration level that facilitates electronic dialog between citizens and business with public institutions, as the main channel of communication with the representatives of the Community States, During the COVID-19 pandemic, which affected all Member States In the context of the pandemic, for granting these benefits, such as: Child

allowance, social welfare, child welfare allowance, family support allowance, heating aid, etc., public admission institutions decided to communicate with each other through PCUe.

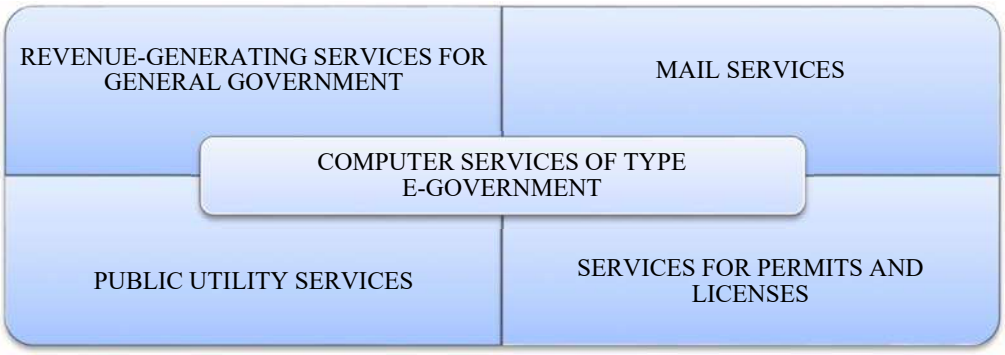
- The electronic system of public procurement (SEAP), as public procurement procedures are mandatory exclusively by electronic means, is currently used by 20.851 contracting authorities and 158.991 economic operators, according to the report on the digital transformation of Romania from February to April 2020.

- The it system for electronic allocation in transport (SIAE, a platform dedicated to freight and passenger transport operators, with a public section, where an unauthenticated user can follow the relevant aspects of the system's work.

Another 5 platforms created during the coronavirus pandemic are: The Cetrebuiesafac.ro platform, a practical guide with rules of interaction, action and recommended behavior during the emergency situation generated by the COVID-19 pandemic, Datelazi.ro information platform for public and media representatives, with reference to the situation caused by the spread of coronavirus infection, the Datelazi.ro platform, following the model of the information portal in Singapore, provides daily updated information such as the number of cases of illness, deceased, healed, various statistics, The Diaspora Hub supports Romanian citizens abroad and emergency support associations and groups, Rohelp.ro, who works to improve the crisis caused by the COVID-19 epidemic.

To access these e-services, the e-forms for most of the services in the list of the 20 essential public services monitored are available. Services to citizens, basic public services can be grouped into 4 categories as shown in Figure No 1 E-government information services below.

Figure no. 1 E-government information services



Source: processing by: http://www.inseed.cimr.pub.ro/documents/Cerere_rambursare_2/WP1

It is the most sophisticated, mature online public services that generate direct revenue for public administration (e.g. download forms, fill out forms online), and the least mature services are for issuing permits and licenses. In Romania, the public tender service is considered one of the most successful and sophisticated services, being among the few services offered at a European level.

According to a case study in the field of public administration services, the disadvantages of eGovernment are significantly less than the benefits of taxpayers' oversight (online and offline – e.g. mobile networks, cameras, etc.). If this in certain situations has an advantage (e.g. surveillance of terrorist or criminal activities), it can also be a violation of citizens' freedoms.

The deployment and maintenance of eGovernment services is costly and for some categories of citizens, citizens with visual impairments or those who cannot afford the use of computers for various reasons are inaccessible in locations without an Internet connection. Another drawback is the false sense of transparency, as authorities have access to data, can be removed, distorted, without public awareness, or can be the targets of electronic attacks, which pose a constant risk.

Therefore, in order for eGovernment services to be used successfully and adopted by users, they must provide trust and security in the operation of data, through electronic authentication and signature, user-friendliness, accessibility, operability, cooperation between authorities. The digitalisation of public administration services also needs to take into account a variety of factors such as legislation, rules and practices, knowledge of human capital, content of services, technology.

The wider application and more effective use of digital technologies will create a favorable

environment for Romania to address the fundamental challenges it faces, while providing Romanians with a better quality of life, new possibilities for communication and easier access to public services and cultural life.

5. Conclusions

As information and communication technologies are constantly developing, e-Government must keep pace with them and use them effectively, both for the benefit of citizens and for the benefit of public officials. Internet connections enable the online tax system of accounting and payment, helping to increase the efficiency of the financial and accounting department.

The implementation of the national reporting information system will increase the speed with which accounting information on any public institution of Romania can be obtained, on the revenue and expenditure accounting budget, on the implementation of the budget, on the control of their legal commitments, on improving the quality of financial and statistical information, Strengthen the financial statements for carrying out carryovers to EUROSTAT.

Management information systems are indispensable tools of the modern manager. This is why their continuous improvement, coupled with the improvement of the performance of the calculation technique, will offer great opportunities to take over the larger and larger segments of the management activity.

Another important aspect is the standardization of public e-services, access to public services and data exchanged between services and users. Relevant in this respect is the idea of establishing one-stop shops, allowing access to all public services in the same place, using the same authentication data and following the same steps.

The issue of data security and authentication should not be overlooked in the interaction with users. Users must have full confidence that the data transmitted by them electronically will only be available to the state authorities and that supervision by certain employees is not possible. In this respect, all data must be submitted in an encrypted manner and signed electronically by users in order not to allow their resubmission. This is the only way to achieve secure, useful eGovernment, which must be coupled with clear policies for access to public information.

E-Government, as a key element of public value, is a key step in public administration reform, to strengthen the administrative capacity of public institutions, to reduce public spending, to simplify procedures and working methodologies, to improve access to information and the quality of public services at central government level.

The use of e-government services is an effective solution to fight evasion. It is precisely because of these multiple advantages that e-public services will develop strongly in the coming period, and are expected to be the most important way of interacting between the state, citizens, companies and other organizations in the near future for most of the problems.

In Romania, the single point of assistance is in its start-up phase, some services are disconnected, most of them are in early development stages, providing only information and communication in one sense, i.e. by offering the useful forms for download.

I believe that the authorities should carry out a campaign to inform and educate citizens in the mass about the services offered by electronic means. To this end, the authorities need to go through a number of steps such as: computerization and technological development of public institutions, making the use of electronic means mandatory for all public institutions vis-à-vis citizens, and making the use of electronic means mandatory for all citizens in their relations with public administration, while extending the national information infrastructure.

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The Digital Economy - A Challenge for Fiscality

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Abstract

The world has changed significantly in recent decades. In addition to globalization, new technologies have facilitated new business models that have put pressure on existing international tax rules. Current economic conditions have prompted many companies to migrate to Internet-based systems to increase efficiency, reduce operating costs, and the ability to operate in real-time between different platforms. Because of this, many companies redesign the main business processes, through investments in technologies, IT systems for economic analysis and decision support, as well as social networks. In this context, the paper aims to provide an overview of the digital economy by highlighting various aspects of the effects of digitalization and the Digital Economy and Society Index (DESI).

Key words: digital economy, the effects of digitization, DESI
J.E.L. classification: H21, L86, O1, G30

1. Introduction

The digital economy raises new plan information, focusing on ensuring transparency and processes for decision making.

New digital technologies are making accessing, storing, and transmitting information increasingly easier and more accessible. With digital information, it can be transformed into new economic and social values, creating huge opportunities for the development of new products and services. Information is becoming the key resource for the digital economy.

As a result, we are currently witnessing the emergence of entirely new markets, industries, enterprises, and work practices, which form a digital economy.

The digital economy will help increase access to education, jobs, and finance. One of Romania's advantages in the transition to the digital economy is represented by the IT sector which is relatively developed. Romania's gap in the digital economy generates several significant opportunities, represented by the digitization of public services that lead to a more efficient administration, the improvement of the collection of taxes, the simplification of the interaction between the public administration and taxpayers; integration of digital technologies in economic processes with a direct impact on increasing the competitiveness and productivity of the Romanian economy.

2. Literature review

Currently, one of the most significant business phenomena is related to digital transformation, reflecting the changes in the economy due to the development of digital technologies (Gapsalamov, 2020; Minakhmetova, 2020).

A group of German scientists (Bloching, B., Leutiger, P., Oltmanns, T., Rossbach, C., Schlick, T., Remane, G., Quick, P. & Shafranyuk, O, 2015) understands through a digital transformation of the continuous interaction of all business sectors, ensuring the adaptation to the requirements of the digital economy.

The concept of the digital economy includes some modern transformations of economic activities, which are a consequence of the use of digital technologies (Țurcan V., Gribincea A., Bîrcă I).

Digitization leads to large-scale changes in the business environment and society, which become permanent (Belk, 2013).

The digital economy has had an impact on all sectors of the economy, for example, retail, transport, financial services, production, education, health care, and others (Duhăneanu M., Marin F., 2014).

The digital economy advantages are: it offers the population easy access to education through the development of information and communication infrastructure; contributes to increasing competitiveness, creating new products and services. The disadvantages of technological globalization are the increase in economic crime.

The Organization for Economic Co-operation and Development (OECD) has already acknowledged in its action report, published in 2015 in the OECD / G20 project on the erosion of the tax base and the transfer of profits (BEPS), that digitization presents difficulties for international taxation. The BEPS project showed that some of the problematic behaviors, specific to BEPS, were exacerbated by the rapid and continuous evolution of digital technologies - the digitization process. As part of the work of Action 1 of the OECD / G20 BEPS project, it was recognized that, due to the general nature of digitization, it would be difficult, if not impossible, to isolate the digital economy.

In addition to the BEPS issues, the 2015 Action Report 1 also concluded that digitization generated some broader fiscal challenges. Of course, it is always a challenge for policymakers to be one step ahead of the latest developments, which is especially true in the context of digitalization.

The favorable framework for OECD / G20 inclusion on BEPS agreed to continue its work in the field of taxation and digitalization, to draw up a final report in 2020. In March 2017, the G20 requested the OECD to draw up an interim report in 2018. The interim report on fiscal challenges posed by digitalization was presented to the G20 in March 2018. It identifies the country's divergent views on how to address the fiscal challenges posed by digitalization and paves the way for further efforts to find a long-term solution based on consensus.

It is also recognized that, in the meantime, technology offers opportunities as well as new challenges for BEPS and fiscal policy and administration.

The most pressing challenge for the pro-inclusion framework - and the international tax community in general - is how to bridge the gap between different points of view to maintain the coherence of the international tax system.

3. Research methodology

The research methodology is based on descriptive statistical techniques. Moreover, this article provides a comprehensive picture of the digital economy and its various implications, both at the national and EU level. It is relevant for the research to point out that the Organization for Economic Co-operation and Development has made significant contributions. The OECD and G20 general framework provided an action plan focusing on 15 actions on financial planning strategies, the first of which was to address the fiscal challenges of the digital economy.

4. Findings

4.1. The effects of digitization

In the analysis of digitalization as a complex global phenomenon, three types of effects can be distinguished (Ciobanu G, Ghinăraru C, Crețu A, Davidescu A, Chiriac B– *Aspecte ale dezvoltării economiei digitale în România*, Editura Universitară, București, 2015):

- Economic effects
- Social effects

- Effects on employment

This means that digitalization can also have political effects, as it relates to globalization, and digitalization is also present in the analysis of global governance, which is in fact the main means by which globalization has its effects on companies.

1.Economic effects. Digitization covered all sectors of economic activity. The effect of digitization in general is represented by an overall increase in economic efficiency, although it is important to take into account its different territorial impact, depending on the areas of the world and the degree of development of their economies, their productive specialization and technological capacity. Smaller economies are generally marginalized more and more in value-added chains, being affected by significant losses of skilled labor. The growth that these economies make from a structure oriented towards the primary sectors directly to an economy focused on tertiary sectors, makes them vulnerable.

Digitization has a precise effect in terms of the forms and models of companies' organization, with greater possibilities to decentralize their activities at the same time, to organize in a network. Digitization affects products, services but especially production processes leading to the creation of global value-added chains and increasing the degree of interdependence between national economies. This effect, is one of the main effects of the emergence of a global market with trading possibilities impossible to imagine in the past, is in fact at the origin of the manifestations that are manifesting today.

The polarization of the workforce based on knowledge and access to new technologies is increasing and there is a transfer of work from low-productivity sectors to high-productivity sectors, but only partially. In many economies, the transfer takes place from productive sectors that are automated and no longer labor-intensive to the service sectors. Finally, in general, the qualifications required are lower and the actual productiveness is quite difficult to assess. At the emerging economies level, this type of effect is very pronounced, being one of the causes of the tendency to divide into rival economic blocs as well as the tendency to create international financial mechanisms and bodies parallel to those resulting from the Bretton Woods agreements more than seven decades ago.

2. Social effects. Opportunities are highlighted by how the digital economy can speed the daily lives of citizens. Risks from the perspective of citizens' rights arise, in terms of protection of privacy, especially the disappearance of the distinction between standard working time and free time, as rest time, to restore the work capacity of the worker. In the absence of this time, the worker's productivity decreases, and his active life may be marked by interruptions due to the deterioration of his health, due to the lack of possibility to restore work capacity, both physical and intellectual.

When we analyze the social relevance of the digital economy, the problem of modernizing public administrations arises. The application of digital techniques can favor efficiency in the functioning of the Administrations in the relations with the citizens. And beyond the administrative field, there are also possibilities for more participatory governance formulas.

3. Effects on employment. The digital economy affects employment, employment volume, and job types. In the case of the volume employment impact, the estimates vary widely, showing that the loss of jobs is overestimated.

There are undoubted effects on the type of jobs to be created, with a general tendency to increase digitally skilled jobs and reduce manual jobs. The most obvious risk is job polarization which can harm already growing inequalities. The risks may arise mainly due to the difficulties of finding jobs for people without digital qualifications, but also due to the precariousness of working conditions in those vulnerable segments of the labor supply.

It should be borne in mind that, due to the relationship between employment and social protection systems, these changes in employment and labor will have an impact on these systems, for example in terms of their financing.

Table no.1. Objectives to be achieved in the economic, social and employment fields

1. Objectives to be achieved in the economic field
➢ allocation of funds and access to initiation programs; ➢ providing support for innovative enterprises; ➢ modernization of telecommunications infrastructure; ➢ platforms must communicate their activities and declare the workforce; ➢ preservation of traditional forms of the economy; ➢ global estimate of the number of jobs that could be lost/gained as a result of digitization;
2. Objectives to be achieved in the social field
➢ creating mechanisms for the right of the worker within the platforms; ➢ improving the dialogue between the platform and the workers; ➢ active attitudes are needed, anticipating the study of the effects of digitization; ➢ equal treatment for all workers; ➢ promoting trust and social dialogue; ➢ promoting social dialogue at all levels; ➢ the need for new requirements for computer security; ➢ improving responses to citizens' needs;
3. Objectives to be achieved in the field of employment
➢ labor market regulation must adapt to new patterns of employment and changing working conditions, effectively promote the rights of individual and collective workers and promote the adaptability of workers; ➢ establishing a working group to design future qualifications; ➢ reorientation of qualifications; ➢ creating programs for the technical field; ➢ encouraging digital talents; ➢ new professions for management positions; ➢ development of training programs for trainers in the field of digitization

Source: Made by the authors according to Study no. 3- Romania and the Digital Single Market of the European Union. Opportunities and challenges

The digitalization of the economy has a variety of effects, with different territorial impacts, depending on certain factors, such as the specialization of the production of different countries and regions within the global economy and different economic, social, and technological development of these regions.

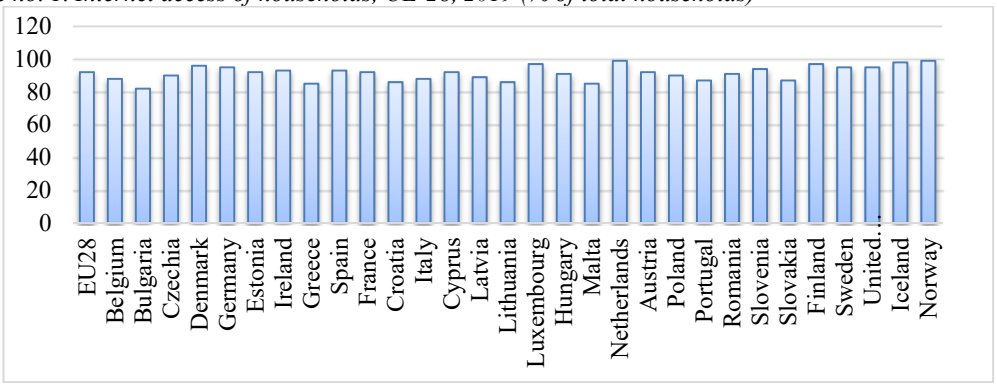
4.2. Index of the digital economy and society

➢ **Population access to the internet.** Current economic conditions have led to many companies migrating to Internet-based systems to improve efficiency, reduce operating costs, and the ability to operate in real-time between different platforms.

Therefore, completely new internet-based products and services have emerged and continue to be developed and can compete with existing ones.

Information and communication technologies have become accessible both in terms of access and cost.

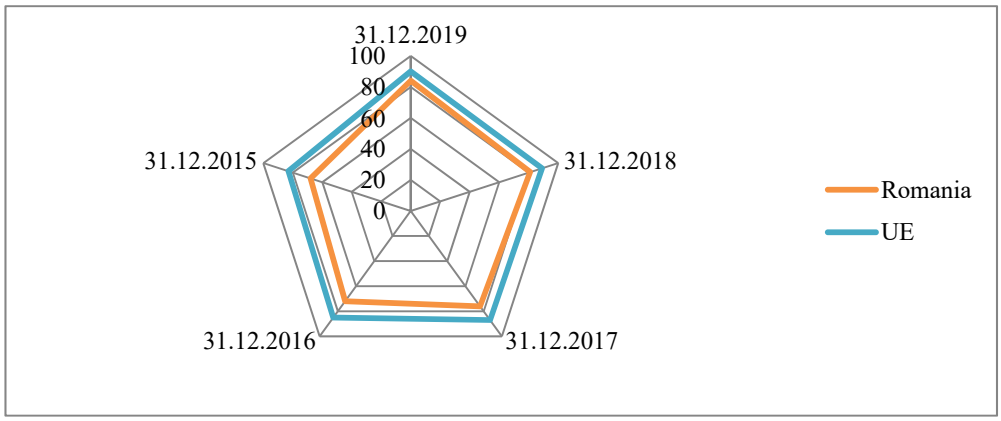
Figure no. 1. Internet access of households, UE-28, 2019 (% of total households)



Source: made by the authors, according to Eurostat ((isoc_ci_in_h))

The highest percentage (99%) of households with internet access in 2019 was registered in the Netherlands and Norway. The lowest percentage of internet access in the EU Member States was observed in Bulgaria (82%).

Figure no.2. Households internet access, Romania (% of total households)

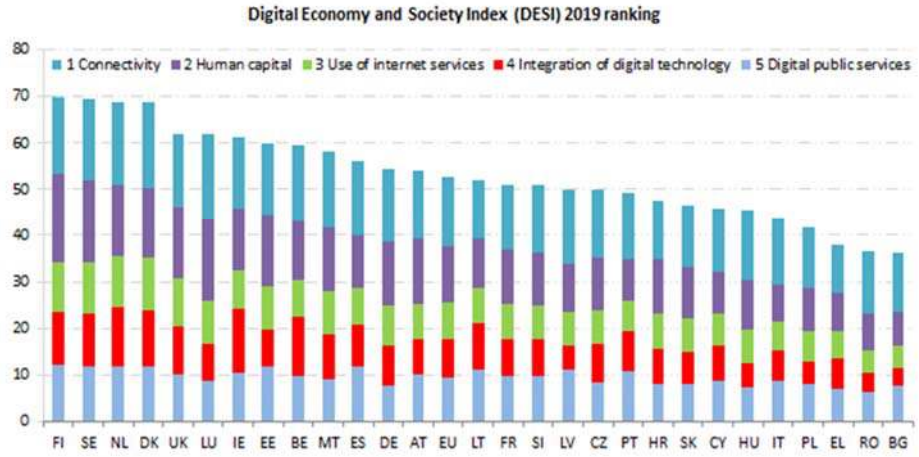


Source: made by the authors, according to Eurostat

In Romania, the internet access of households registered an evolution as follows: it increased by 5.88% in 2016 compared to 2015, it increased by 5.55% in 2017 compared to 2016, it increased by 6.57% in 2018 compared to 2017, and in 2019 it increased by 3.7% compared to 2018.

➢ **Index of the digital economy and society (DESI).** ***DESI, index of the digital economy and society*** is a composite index that integrates a set of indicators, structured around five dimensions: connectivity, human capital, internet use, integration of digital technologies, and digital public services. DESI combines more than 30 indicators and uses a weighting system to rank each country according to its digital performance. The index is divided into five main dimensions, which in turn are composed of sub-dimensions. The main dimensions are shown in Figure 3.

Figure no. 3. Index of the digital economy and society (DESI) at EU level, in 2019



Source: ec.europa.eu, available at https://ec.europa.eu/digital-single-market/en/desi

Romania is on the penultimate place among the 28 EU member states according to the DESI Report 2019 climbing a position compared to 2018 and 2017. In 2019, all countries have improved their digital performance. Finland, the Netherlands, Sweden, and Denmark are among the world leaders in digitalization, scoring the best in DESI 2019. These countries are followed by the United Kingdom, Luxembourg, Ireland, Estonia, and Belgium.

Although Romania shows a slight improvement in performance in almost all dimensions of DESI measured, the place in the ranking remained relatively stable, given that overall progress has been very slow. Romania has the best results in terms of connectivity, thanks to the widespread availability of high-speed and very high-speed fixed broadband networks.

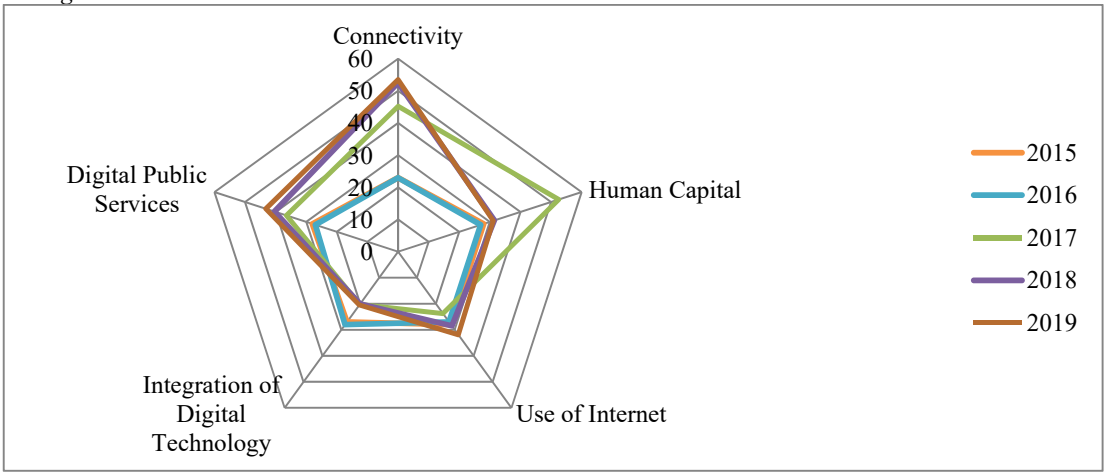
Romania ranks 22nd in terms of connectivity. Denmark, Sweden, and Luxembourg are among the first countries in terms of connectivity size. In 2019 there was an increase of 15.7% compared to the previous year. However, the digital divide between urban and rural areas in Romania is illustrated by the figures for the coverage of very high-speed broadband services, which benefit 39% of rural areas.

In terms of the size of human capital, Romania ranks 27th among EU countries, well below the EU average. Finland, Sweden, and Luxembourg are among the first countries in terms of the size of human capital. In Romania, the levels of basic and advanced digital skills remain the lowest among EU member states.

The first countries in terms of Internet usage include the Netherlands, Denmark, Sweden, and Finland. In general, Romania continues to register the lowest level of use of internet services among EU member states. The first countries to use the Internet include the Netherlands, Denmark, Finland, Belgium, and Denmark. Regarding the integration of digital technology by enterprises, Romania ranks 27th among EU countries, well below the EU average. Compared to the last two years, the place occupied by Romania has remained constant in terms of this dimension.

Spain, the Netherlands, Estonia, Finland, Latvia, Lithuania and Ireland are among the first countries in terms of the size of digital public services. In terms of digital public services, Romania is on the last place in the EU ranking. However, the country is performing satisfactorily on certain indicators. Therefore, there is a high level of online interaction between public authorities and citizens, as Romania ranks seventh in terms of e-government users, representing 82% of Internet users, compared to the EU average of 64%.

Figure no.4. DESI – Romania



Source: made by the authors, according to Eurostat

Analyzing Figure no.4. there is an increase in the size of connectivity in 2019 by 1.9% compared to 2018. Regarding the size of human capital, there was a decrease in 2019 by 1.26% compared to 2018. Internet services increased in 2019 by 11.9% compared to 2018. The integration of digital technology increased in 2019 by 1.9% compared to 2018. Digital public services increased in 2019 by 6.9% compared to the year 2018.

Romania, which is on the penultimate position of the DESI ranking in 2019, has an open front of the action, as can be seen in the following table:

Table no.2. The situation in Romania, opportunities-challenges analogy

Opportunities	Challenges
❖ Increasing the quality of education and human resources. ❖ The size of the markets can be considered an opportunity for export, but it can also become a threat for import. ❖ Encouraging the use of new technologies, development of start-ups. ❖ Increasing the quality of life and public services. ❖ Transparency, development of new smart services for the benefit of citizens. ❖ Accessing EU funding for SME development infrastructure and digital services. ❖ Removing legal barriers to cross-border establishment of companies and access to markets.	❖ The difficulty of reducing dependence on technologies from abroad. ❖ Low competitiveness compared to the big European players. ❖ Adaptation of the regime of sanctions and contraventions for violation of data protection regulations depending on the size and type of an economic operator. ❖ The changeover to the euro will benefit the predominantly European foreign trade with a share of 20% in GDP. ❖ Regulation and operationalization of citizens' access to medical services, personal medical documents available in electronic format. ❖ Jumping over stages and taking over new technologies or services.

Source: made by the authors according to Study no. 3- Romania and the Digital Single Market of the European Union. Opportunities and challenges

5. Conclusions

Digitization has had a major innovative effect and has influenced every sector of the economy. Business models have emerged with common features - mobility, the use of data to generate value, and network effects. These trends show no signs of declining.

Digital technologies will increase competitiveness in the economy; this will be on a global scale as geographical barriers become increasingly irrelevant.

The digital economy has led to the phenomenon of micro-multinational-small companies with global expansion. The conceptual norm of the workplace and the work schedule is changing; people can work from home, with colleagues and collaborators on separate continents.

Both technological and business innovations have led to a reduction in barriers to entry into the Internet sector. As a result, companies that wanted to maintain their market position strived to innovate (products, processes, and business models). As a result, value creation has moved rapidly from one sector to another and from one company to another.

The increasing digitalization of traditional businesses as well as the emergence of purely digital operating companies have an impact on the functioning of national and international tax systems, both directly and indirectly. If the framework conditions are met, ICT could lead to increases in productivity and innovation, contributing to GDP growth in the same way as electrification in the 19th and 20th centuries.

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The Impact of COVID-19 Pandemic on the Activity of the Professional Accountant

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Abstract

This paper focuses on the effect that the new measures imposed by the pandemic situation generated by COVID-19 had on the activity of professional accountants. In these turbulent times, professional accountants play an important role in both short-term and long-term decision-making process for the survival of economic entities. However, the effects of imposing legislative restrictions and psychological implementation caused by this pandemic can influence the quality of accounting information due to the subjectivism of the professional accountant. Furtheron, the users of accounting information trust that the accounting professionals will capture as adequately and completely as possible the COVID-19 pandemic effects on the activity of the economic entities.

Key words: professional accounting, Covid-19, professional training, accounting information, digitization
J.E.L. classification: M410

1. Introduction

The activity of the professional accountant was and still is very important for a positive evolution of the activity of economic entities, today their role being not only to ensure the quality of financial reporting but to contribute to the stability and overall progress of the entity.

The existence of a competent professional accountant is an invaluable advantage for an entity, and the competence is determined by their training in the field, but also by their emotional state, strongly influenced in the pandemic. All these influences the ability of accountants to take a pragmatic and objective approach in solving problems. Using their skills and understanding of the entity and the environment in which they operate, accountants must face a variety of challenges, and this time-consuming period of COVID-19 is a challenge that no one can forseen.

There is a wide literature on crisis management in organizations, yet we have found only one that refers to professional training in the field, namely the study written by Sangster A., Stoner G. & Barbara Flood (2020), which opens up a new direction for accounting professional training research, one that considers the management of crises in accounting education as a response to a global crisis, in this context being relevant this empirical research which surprised aspects related to the training of accountants and accounting experts.

Professor Robert-Aurelian Șova brings out very well the connection between the impact of COVID-19 and the activity of professional accountants, underlining the fact that given the role of professional accountants as reliable advisors to entrepreneurs, they are at the forefront (like the doctors from hospitals) in the fight against the economic effects of Coronavirus as this virus has also an economic nature, trying to identify solutions for the rapid healing of businesses in the public interest.

In this context, we considered it appropriate to carry out a study based on a questionnaire applied to professional accountants wishing to capture the impact of the pandemic generated by COVID-19 on their activity.

2. Literature review

The effects of COVID-19 pandemic will be felt for a long time on economic and social activities in Romania and internationally, this aspect being foreseen due to the extreme evolution of COVID-19 infestations globally, but also nationally, which influences the activity of professional accountants, who are the liaisons between economic entities and state bodies. Considering the analysis of the concentration of turnover and of the number of employees in the SMEs sector in 2018, legal and accounting activities (a number of 10710) represent 19.6% of the total turnover of Romania's SMEs and a percentage of 11.4% (22,788 employees) from the total number of employees of this category of entities (www.insse.ro).

The importance of the financial accounting activity is underline by Antonescu D., 2020, who appreciates that one of the actions, and possible solutions for the recovery of SMEs, is the creation of support centers at regional level, through POCA 2014-2020, which will provide free services necessary and useful for economic entities (which will be heavily decapitalized), in the post-crisis period (types of services that are linked to: accounting, juridical, human resources, financial advice and mediation, digital transformation, aid to adapt to the new socio-economic context, consultancy regarding the restructure of the business, etc).

This pandemic period confirms that the On-line will dominate the OFF-line, as Guștiuc A. and Guștiuc L. point out considering that the personal or group meetings will be reduced dramatically, the managers being put in the situation of organizing meetings with employees' attendance only when this is absolutely necessary and vital, the rest of the meetings being organized online. This will allow the employer to be practically non-stop in contact with employees, to interact more operatively, when it needed. On the one hand the employee will always feel "connected" to work, which could induce a state of stress, and on the other hand, if we look at it from the perspective of a professional accountant, this will improve communication with management/clients. At the same time stress can increase the subjectivism of accountants, subjectivism that is not negligible, the human factor, the "professional with glasses and sleeves", who in the view of managers interviewed in the study *Impact of accounting information on managerial decisions - Empirical study conducted in the hospitality industry in Romania*, can influence the quality of accounting information through its subjectivity in proportion of 78%, taking the second place in the category of factors that influence the quality of information provided by managerial accounting after the lack of a cost calculation system.

Moreover, these restrictions have also affected the professional training of this category, being known that one should proof the attendance to compulsory courses, (at least 120 hours), or equivalent units of continuous professional development. So we can talk about a reformulation of training, especially through the transition to distance learning, lecturers rethinking all their activities based on these new trends. It should be noted that accounting professional training have been, before COVID-19, predominantly "traditional", this taking place mainly in the form of lectures for large groups, tutorials for small groups, workshops or round tables (Sangster A., Stoner G. & Barbara Flood (2020).

Regarding the impact of Covid on professional accountants, the Association of Chartered Certified Accountants (ACCA) conducted a study in March 2020, which concluded that the main problem faced by professional accountants during the pandemic is the identification of new clients.

3. Research methodology

Given the research topic, we considered that this impact can be measured either by direct dialogue, an aspect that is difficult to achieve in periods when social distancing is required, or by surveying users' opinions. As it is a matter of recording and collecting opinions and/or approximate data, on a scale with a relatively high degree of subjectivity, the classical method of statistical survey can be used as a form of partial observation, provided that total observation is, if not impossible, at least extremely expensive, exceeding both the possibilities and the necessities of the present research.

Unlike the statistical survey - the most rigorously grounded method of statistical observation from a scientific/mathematical point of view - the opinion survey does not involve ensuring the representativeness of the sample, moreover, the response of the interviewed subjects in an opinion survey is voluntary, which is why the data gathered using this method are preliminary and indicative, and can be used mainly to guide research in one direction or another rather than to draw clear and precise conclusions about the evolution of economic phenomena and processes, or regarding the results of the studied process or phenomenon.

The research presented in this paper starts from the following hypotheses:

I1. Measures to limit the spread of COVID-19 virus have affected all categories of economic activities;

I2. Measures to limit COVID-19 virus have led to changes in the way accountants work;

I3. Accelerating digitization within the financial accounting department is a solution in times of pandemic;

I4. The degree of satisfaction regarding the courses in the financial accounting field was affected due to fact that the courses were held online.

The questionnaire "The impact of COVID-19 on the professional accountant" was created in the Google Forms application, being available online https://docs.google.com/forms/d/1C9tLTXR5xomx-B-HjqQEfSA2CXqd0LtPEjVZDconogw/edit?ts=5) and comprises a set of 22 questions, grouped as follows:

- in the first part of the questionnaire there are a number of 19 questions related to the information necessary to confirm or refute the research hypotheses, in order to achieve its goal, as well as questions that were written in a friendly manner.
- an additional set of 3 questions, leading to the characterization and statistical classification of the respondents (professional training of the respondents, seniority, level and year of study).

The questionnaire strictly respected the anonymity of the person completing it, avoiding any information related to one's identity, so professional accountants who completed it could answer honestly, without showing weakness in expressing emotional state during this period of isolation and social distancing imposed by COVID-19 pandemic.

Of the 1,068 valid answers that were subjected to a process of centralization and data mining, needed for better interpretation, 159 respondents are professional accountants, and 35% of the respondents have more than 5 years seniority in the field.

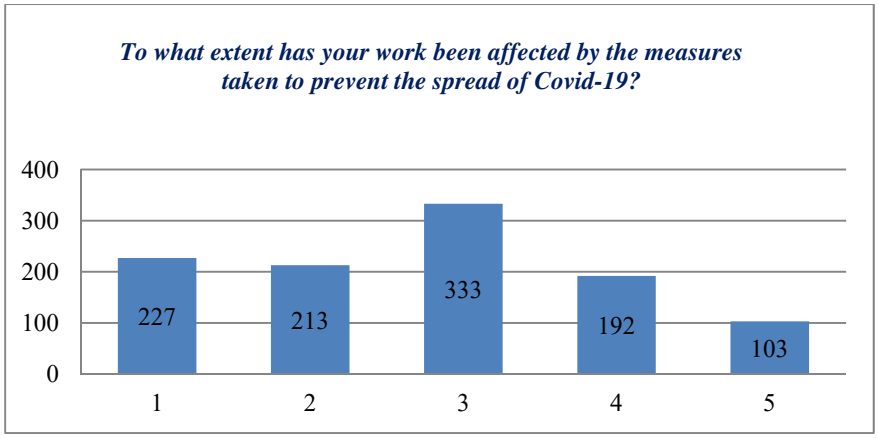
4. Analysis of results and hypotheses' verification

If we talk about the categories of economic activities that were affected by the crisis caused by the Covid 19 pandemic, the overwhelming answers show that on the first place is "tourism" (861 respondents, representing 80.6%), followed by "trade" (763 respondents, representing 71, 4%), "fitness center activities" (602 respondents, representing 56.4%), and "public catering units" (592 respondents, representing 55.4%).

The degree to which the activity was affected due to the measures taken to prevent the spread of Covid-19 was measured on a five-step scale, from 1 to 5, 1 representing "very high measure" and being chosen by 227 respondents (21.3%). The rest of the respondents answered as follows: on the second scale answered 213 which represents 19.9%, on the third scale 333 respondents, representing 31.2%, on the fourth scale, 192 respondents, representing 18% and on the last scale "in little measure" were 103 respondents representing 9.6% of the total. Cumulating the first three percents, it is observed that a significant percentage (72.4%), states that the activity was affected by the measures taken to prevent the spread of the virus. However, if we analyse the answers sent by professional accountants, which are 159, 12.5% of them say that the activity was affected to a "very large extent" and the majority, 40.8% say that the activity was not influenced by the measures taken to prevent the spread of Covid-19." In order to measure the impact of SARS-Cov.2, the NIS conducted an ad-hoc survey between 17-19 March 2020 on estimating the evolution of the activity and the number of of employees for the periods 17/19 - 31 March and 1 - 30 April 2020. The managers were asked about the evolution of the economic activity, respectively if they consider that the activity will be restricted (by up to 25%, between 25-50%, over 50 % or will close), or if the activity will not be restricted or

could even increase. Given the uncertainty of the evolution of SARS-Cov.2, managers had also the opportunity to opt for the version "I cannot estimate". From the analysis of the answers, one in five managers mentioned that by the end of March the activity could drop down by up to 25%. Three quarters of the managers who mentioned that the activity will increase are from the retail sector" (www.insse.ro).

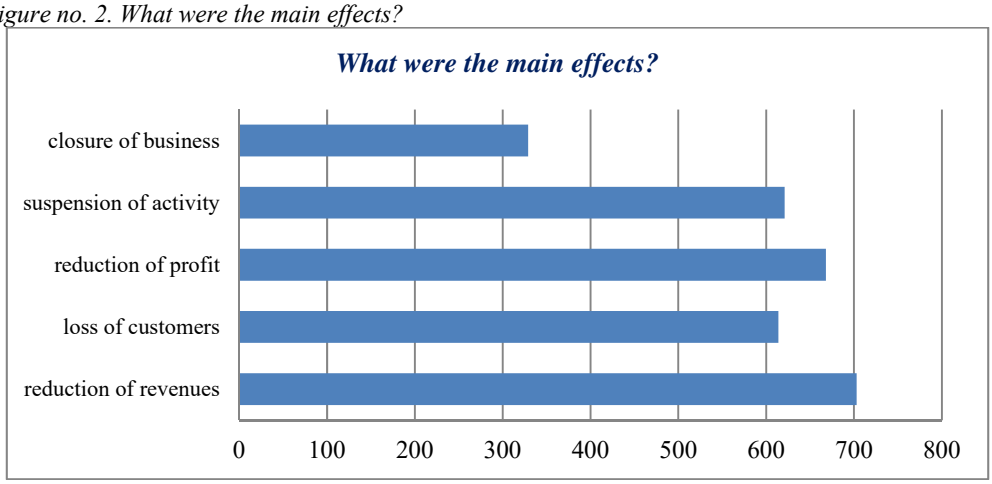
Figure no. 1. To what extent has your work been affected by the measures taken to prevent the spread of Covid-19?



Source: made by the authors

If we look at the main effects determined by these restrictions, the most frequent used words are "reduction of revenues", "reduction of profit", "suspension of activity", "loss of customers", "closure of business". It is noteworthy that the reduction in revenues led to the reduction in profit, these two being the main experienced effects. Based on the analysis carried out by the National Institute of Statistics on March 25, 2020, it was stated that the most affected would be small and medium enterprises whose managers estimated as the main risk the reduction of over 50% or even the closure of the activity.

Figure no. 2. What were the main effects?

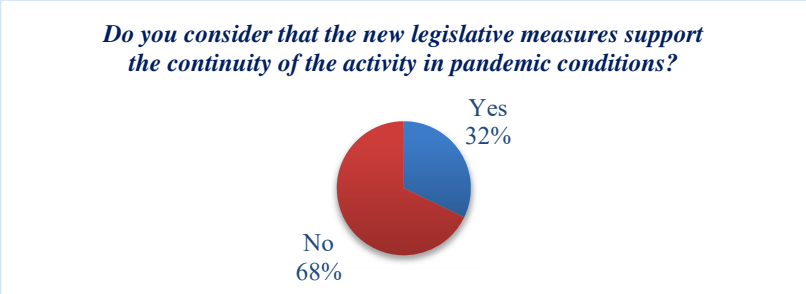


Source: made by the authors

The perception of the new legislative measures is a positive one for 345 respondents (representing 32.3%) who answered that they support the continuity of activity in pandemic conditions, yet 729 (68.3%) responded negatively, which should raise a question mark for the legislator. As it can be seen from the responses received from professional accountants, a significant part of them, namely 75%, answered negative, which indicates that they consider that the new legislative measures are not in support of business continuity, and we consider these responses

revealed in the conditions in which they are the main providers of economic information (accounting in this case), they being aware of the evolution of economic indicators.

Figure no. 3. Do you consider that the new legislative measures support the continuity of the activity in pandemic conditions?



Source: made by the authors

The most important measures taken at the legislative level are: wearing a face mask, social distancing, online courses, financial aid provided by the state, sanitation and suspension of events with many participants.

Among the measures taken in order to be able to "survive" in this period of pandemic, the variants offered by the respondents highlight the following:

- support the population, through various measures that are ment to help both the population and companies regardless of the field of activity;
- mass testing of the population;
- granting aid to companies;
- respecting the hygiene;
- isolation;
- authorities ought to compel citizens to follow the rules and apply sanctions to those who violate them;
- keeping calm and having a healthy lifestyle;
- social distancing and avoiding crowded areas;
- wearing a mask;
- disinfection of hands and surfaces.

What should be noted is that no respondent referred to the discrimination that took place among professional accountants, in the sense that they could not benefit from the support measures established by GEO no. 130/2020, thus the accounting firms / tax consultants / auditors / evaluators that were in difficulty could not benefit from the available European funds that could help them reduce the negative impact, all respondents being mainly concerned with the measures taken to health protection.

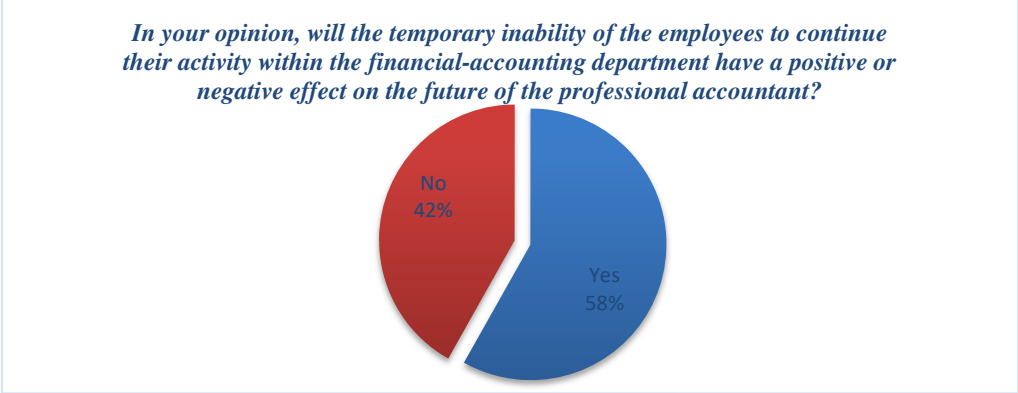
If we refer to the evolution of incomes as a result of the measures imposed by lockdown, school closures, or the effect of social distancing, we can classify 67.1% of answers as affirmative and 33.2% as negative answers. As it can be seen from the analysis of other studies conducted on this topic, in terms of estimating the evolution of the number of employees by the end of March, almost a quarter of managers mentioned that they cannot estimate how it will evolve. The largest decreases are expected to be in the services sector. The uncertainty for April increases, thus the number of managers who mentioned that they cannot estimate the evolution of the number of employees was 43% of the total respondents.

The category of economic entities which were the most affected by the Covid 19 crisis was that of SMEs and all measures taken at the executive level must start from the idea that if SMEs, the basis of any state's economy, are not maintained afloatf then the state will also suffer: budget revenues will be lower and expenditures will be higher (including those with support for furlough), therefore we will have a high deficit, and at the same time it would have been affected the banking sector because neither economic entities nor individuals will have the capacity to honor their obligations to banking institutions.

It is clear that this negative impact also affects professional accountants and encompasses the sharp slowdown in economic activity during the state of emergency. Reducing or even stopping the activity of some economic entities, mainly SMEs, automatically means less money for all those who worked with them, including chartered accountants or certified public accountants. Both in the state of emergency and in the state of alert the activity of professional accountants did not effectively reduce, as during this period they made the same reports and tax returns that were to be submitted to the state bodies, but they certainly recorded a reduction in revenue, due to the crisis, their income dropping down because some customers could no longer pay them or even went bankrupt.

A relevant question related to specialists' opinion was "*In your opinion, will the temporary inability of the employees to continue their activity within the financial-accounting department have a positive or negative effect on the future of the professional accountant*?" The respondents were offered two variants of answer, affirmative and negative, and 627 of them answered affirmative (54%) and the other 451 (46%) answered negative. The professional accountant is a producer of financial information, who must accurately describe the financial position and financial performance of an economic entity, so in this period of restrictions it was possible to observe once again the importance of providing accurate and fast information to the management of the entity in order to take immediate decisions to mitigate the effects of the crisis we are going through. Professional competence and prudence require that professional accountants should maintain the necessary professional knowledge and skills so that their clients or employers can be sure that they receive competent professional services, all of which allow a professional accountant to carry out a competent activity in a professional environment. Despite the problems associated with COVID-19, the work of professional accountants should be carried out in full compliance with applicable legal standards and regulations, albeit in different circumstances, so the use of information technology and digitization can be an ally in meeting deadlines.

Figure no. 5. In your opinion, will the temporary inability of the employees to continue their activity within the financial-accounting department have a positive or negative effect on the future of the professional accountant?



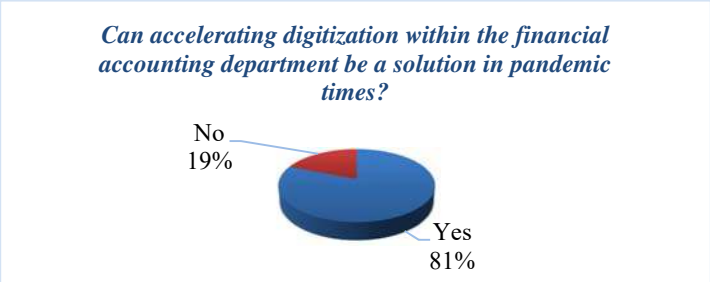
Source: made by the authors

The main positive effects stated by the respondents as a result of the temporary inability of employees to carry out their activity within the financial-accounting department are: spending time with loved ones, lower workload, professional accountant can work from home, efficient management of working time;
and among the negative effects we can mention: health problems of staff from the financial-accounting field, loss of customers, lack of experience; not having the necessary technology, lack of dealing with problems on the spot, difficulty in making decisions, lack of communication or poor online communication, and the fact that due to temporary work inability many activities did not withstand this period, thus negatively affecting the work of accountants.

The issue of digitization in relation to the Covid pandemic was addressed in the question "*Can accelerating digitization within the financial accounting department be a solution in times of pandemic*?"and it gives the interviewees the opportunity to express themselves directly, either affirmative in proportion of 80.6% or negative in proportion of 19.4%. Nowadays, it is no longer

enough for a professional accountant to know in detail the accounting techniques, legislative and calculation aspects of taxes and fees, but him/her must know to use advanced information technologies and digital connection as it can be noticed from the rceived answers, 88% of the respondents confirming this. Professional accountants who understand the digital age will play an important role in managing the systems and processes that support the acquisition, management, analysis and distribution of information (Pavel, 2017). Therefore, they need to make the connection between information technology, processes and the resulting financial performance.

Figure no. 6. Can accelerating digitization within the financial accounting department be a solution in times of pandemic?

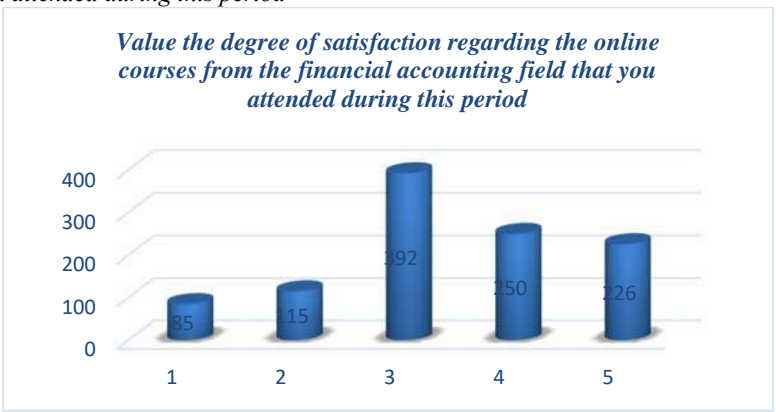


Source: made by the authors

The openness of professional accountants to the use of educational platforms is based also on the experience gained while using digitization with state bodies, so the transition to online was not as difficult as expected and it was made in a short period of time, an aspect noticed in the surveys conducted by CECCAR, 2019. The social distancing measures imposed by the COVID-19 pandemic led, in a very short time, to the digitalization of educational activities in Romania and worldwide, and this transformation underline once gain the need to develop responsible and appropriate attitudes in online environment.

The degree of satisfaction regarding the online courses from the financial accounting field that were attended within this period is situated in the middle of scale with a percentage of 36.7% (it was used a scale from 1 to 5, respectively from "totally dissatisfied" to "fully satisfied"). We consider that this fact was not influenced by the online course techniques but rather by the mental state of the students, who had completely different priorities in this period, mainly maintaining their health.

Figure no. 7. Value the degree of satisfaction regarding the online courses from the financial accounting field that you attended during this period



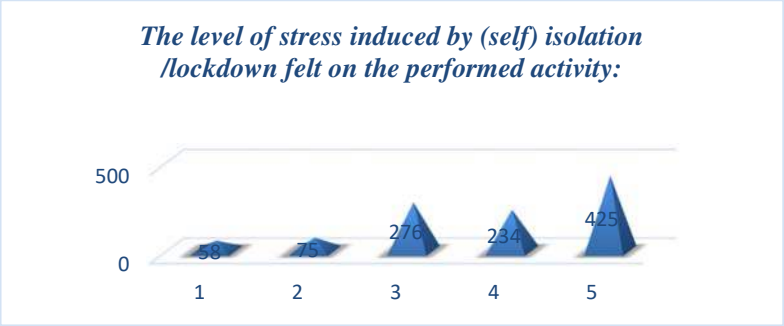
Source: made by the authors

Technological progress influences both accounting policies and the conduct of actors in the accounting market, the main actor being the professional accountant. The economic entities in the financial-accounting field must keep up with technology, which evolves very quickly, and to adapt to new technological or medical challenges. Outsourcing the processes that ensure the reports necessary for decision-making can be a solution that entities should consider when analyzing the

situation of the team within the financial-accounting department according to 36.3% of respondents. Most of the respondents chose "I do not know" in a proportion of 53.7% because they did not face such situations, but what should be noted is that professional accountants prefer the status of employee and not free lancer, because only 25.8% vote for outsourcing.

The level of stress induced by (self) isolation /lockdown was felt by 39.8% of those interviewed, and it must be analyzed in a context that can influence the level of subjectivity of the professional accountant, and we must not forget that he/her must present correctly, accurately and completely, through the financial statements, the economic reality of the entity (financial position and performance).

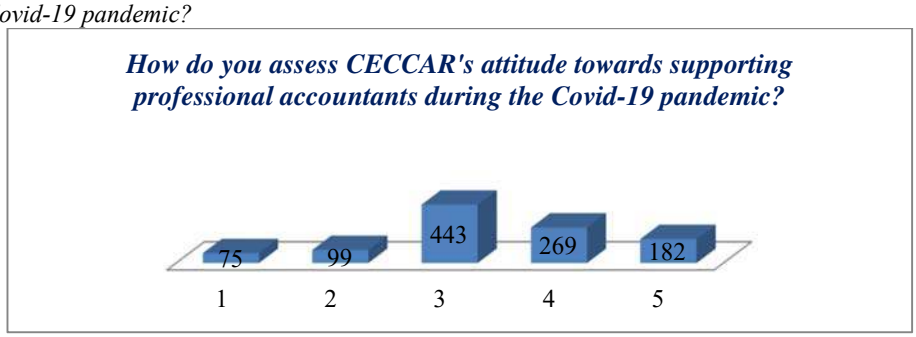
Figure no. 8. The level of stress induced by (self) isolation /lockdown was felt on the performed activity



Source: made by the authors

CECCAR's attitude to support professional accountants during the Covid-19 pandemic, is appreciated by 76% of the respondents. Both CECCAR and the academic environment have been continuously involved in managing this transformation, the transition from the traditional role of the professional accountant to a modern one, adapted to the current requirements of the business environment. Nowadays professional accountant is a visionary person, able to meet the requirements of the global market, with communication skills and a privileged social status.

Figure no. 9. How do you assess CECCAR's attitude towards supporting professional accountants during the Covid-19 pandemic?



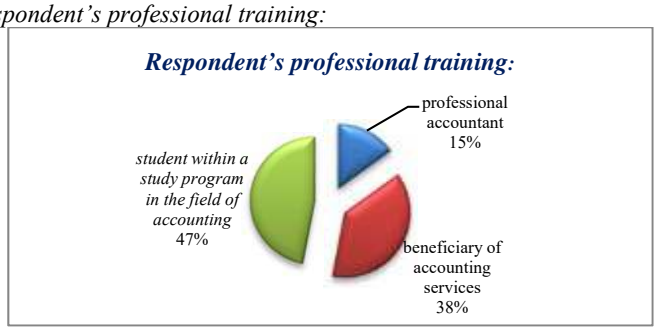
Source: made by the authors

The use of business intelligence tools can be a solution that entities should consider when analyzing the situation of the team within the financial-accounting department in the opinion of 48.9%, but the minus is given by the degree of knowledge in the field because the answer " I do not know" was given by 42.7% of the respondents. "Business Intelligence refers to computer systems for identifying, extracting and analyzing data available in a company, systems which purpose is to provide real support for business decisions" (Dedić, Stanier 2016). Analyzing the answers of professional accountants, 62.7% consider the use of these tools as a solution.

Before making a synthesis of the conclusions and a final review of the hypotheses, we should present the second set of questions, regarding the professional training of the respondents. As respects the professional training of the respondents out of the 1,068 answers obtained, 47.4% are in favor of the *student within a study program in the field of accounting* option, 37.7% of the respondents declared that they are beneficiaries of accounting services and 14, 9% said they are

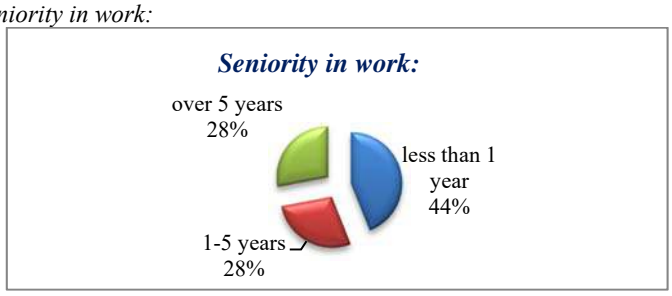
professional accountants.

Figure no. 10. Respondent's professional training:



Source: made by the authors

Figure no. 11. Seniority in work:



Source: made by the authors

From the last two graphs, it can be seen that a number of 858 respondents are employed with less than one year of seniority - 44.2%, 1-5 years - 27.9% and over 5 years - 28%, thus in the category of the interviewees there are many representatives of generation Z or "digital natives", who grew up with social media and mobile technology and could easily cope with the new way in which the professional activity is carried out.

5. Conclusions regarding the validity of the research hypotheses

Following a quasi-detailed analysis of the questionnaire replies, observations and interpretations, as well as the interim conclusions, the set of final conclusions on the research hypotheses is as follows:

I1. Measures to limit COVID-19 virus have affected all categories of economic activities; is fully confirmed;

I2. Measures to limit the COVID-19 virus have led to changes in the way accountants work; is partially confirmed;

I3. Accelerating digitization within the financial accounting department is a solution in times of pandemics; is fully confirmed;

I4. The degree of satisfaction related to the courses in the financial accounting field has suffered due to their occurance in online format; is partially confirmed.

This research emphasisis the idea that professional accountants are trained to face challenges, even if some of them are of medical nature, are open-minded people ready to work online, yet underlines the fact that they have been subjected to stress caused not by the way in which they deal with their activity, but by the concern to keep themselves healthy during this pandemic period.

6. Acknowledgement

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The Cost Equation of Sewage Services in Romania

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Abstract

The aim of the research is to achieve a multiple linear regression related to the cost of the sewerage service. This cost equation allows us to analyze the effect of changing the cost elements in the tariff structure of sewerage and wastewater treatment, both at the enterprise level and at the level of the national economy. It is a real challenge to shape the effect of changing social policies that have implications on wage, energy and other costs and on the sewerage tariff. The equation was based on data provided by regional water and sewerage operators in Romania for the period 2012-2019. With the help of the resulting multiple linear regression we can predict the level of increase of the sewerage-treatment tariff applied by the regional water and sewerage operators in Romania, as an effect of the changes of the different cost elements. The results of this research can be useful and interesting both for drinking water and sanitation regulators and for researchers.

Key words: water policy, wastewater cost, wastewater tariff, cost ecuation
J.E.L. classification: L95, Q25, M19

1. Introduction

Today, when one of the most important issues worldwide is the pollution of existing resources and the use of renewable resources, there is an increasing emphasis on the resource of drinking water and wastewater treatment. The importance of this theme can be captured by the countless articles in various scientific publications on the subject and the numerous reports by the World Bank and the UN on the subject.

Human activity has a major impact on the water cycle. The quantity and quality of available water stocks is influenced by the quality of wastewater discharged (Meran et ali, 2021). Taking into account the IWA statistics, it can be seen that water and wastewater prices in the world's cities are very low. It is therefore interesting to analyse the relationship between the tariffs applied and the costs of these activities.

Prior to 1990, the issue of efficient use of water resources and efficiency in the drinking water industry was not raised. However, the first steps in this direction have been made in the United States since the 1970s, when they began to study the optimal size of water and sewerage operators and the possibility of achieving economies of scale (Abbott, 2012).

Both in Romania and all over the World Water and sewage utilities have a geographical monopoly. This monopoly requires regulation and public control that replaces a competitive market (Tanner et al., 2018).

As the report by the UK Environment Agency shows demographic and environmental changes are reducing the access and availability of freshwater resources (EA, 2011). We are convinced that this is also true for Romania.

In these circumstances the regulatory and control authorities will demand continuous improvement of the quality and efficiency of water and sewerage services. An aspect of the efficiency of the service can also be measured in the level of costs related to that activity.

When an operator provides more services, then measuring costs and performance becomes more difficult (Torres and Morrison, 2006).

It is very important that the costs generated by public utilities such as water and sewerage services are constantly measured and monitored. Monitoring and control are important because most water and sewerage operators are publicly owned, so they indirectly use public money and operate on a mostly public infrastructure. Public Control can be achieved by means of performance indicators by which these public undertakings are monitored. In the set of performance indicators are usually included, technical indicators, quality of services and some financial indicators such as profit, profitability rate, etc. (Fülöp et al., 2017). Another way of control is to control the costs and tariffs applied by these water and sewage operators.

Analyzing the structure of the sewage tariff at the national level, we can diagnose whether at the level of water and sewage operators there are large deviations from the average per country and we can conclude what are the elements that lead to the increase in the tariff. These elements theoretically can be: expenditure on Energy, personnel, services provided by third parties, depreciation, royalty or the expected profit of the owners (Fülöp and Bakó, 2017).

In this context, it is important to achieve a linear equation on the cost structure of drinking water, with which it is possible to forecast the effects of changes in cost elements on the applied tariff.

In the present research we have made a linear regression on the water tariff and the related costs.

2. Literature review

In the literature, the ways of controlling tariffs in the field of drinking water and sewage sewerage are addressed. The manner in which this control is carried out influences the level of the accepted cost and profit. Today in theory and practice in the field we find two modalities of regulation (control) of the tariff (Reynaud and Thomas, 2013). This control carried out by a regulatory body can be done by regulating the tariff, namely by regulating the maximum rate of return that can be applied tariff formation (Fülöp et al., 2017).

In the practice of different countries both methods are applied with all the advantages and disadvantages that each method presents individually.

Their advantages and disadvantages were very clearly identified in a research conducted by Newbery (1997).

The market for water and sewerage services is a monopolistic market, because of this it can not function effectively without tariff regulation. It cannot be effective because there are no real incentives to make the business more efficient. (Marques and De Witte, 2011).

However, a virtual competition between water and sewerage operators can be created by comparing the performance achieved with the average and best practice (Maziotis et al., 2016).

Virtual competition can be achieved by creating a benchmarking system both nationally and internationally. Such systems exist both nationally and internationally. At the national level it was created and is managed by the A.R.A. (Romanian Water Association), this is a functional benchmarking system that provides very practical data and comparisons for water and sewerage operators in Romania. Internationally there is a project managed by IBNet, which includes countries around the world, but unfortunately their database in 2018 is declining. Its place will probably be taken by the one designed and administered by IWA (International Water Association).

The regulation of the tariff through profitability rate aims to ensure the return on investments made in the water and sewerage activity. The rate of return is applied to the unit cost per m3 of wastewater.

At any major change in the cost structure, the applied tariffs are recalculated by applying at the level of production costs a regulated rate of return (Tariffs in Romania are approved by the ANRSC regulator). In this way, water and sewerage companies have the opportunity to reach the expected levels of profitability (profitability).

The second method of tariff regulation differs significantly from the first method and can be applied for the regulation of tariffs in the field of water and sewerage. When using this regulatory method, the regulatory authority imposes the pre-established conditions under which the water and sewerage tariff can be changed (Alexander and Irwin, 1996).

The alternative of the regulated tariff certainly leads to the efficiency of the water and sewerage activity, but at the same time to the minimization of investments in the field (Fülöp and Bakó, 2017).

It is an interesting fact that today in Romania both methods are applied. The basic method is the one based on profitability rates and appears through the regulation issued (A.N.R.S.C Order no. 65/2007 - Methodology for establishing, adjusting or modifying the prices / tariffs for public water and sewerage services) by the regulatory body A.N.R.S.C. (National Regulatory Authority for Community Public Utility Services) and applies to any sewerage tariff established except those established by financing contracts concluded for the realization of major infrastructure investments in this field. In the case of financing contracts concluded between water and sewerage operators and the Ministry of European Funds through the Large Infrastructure Operational Program (POIM), a tariff regulation is performed. This tariff regulation occurs through the tariff policies included in the financing contracts.

3. Research methodology

Our research is based on the analysis of the specialized literature and the case study. In the research we based on the literature review and as a method of research we used econometric modeling.

The econometric methods are applicable in almost all branches of the applied economy. Whether it is testing an economic theory or it shapes a business decision or a government policy, econometric models are useful and applicable.

Very often in the development of models we do not rely on economic theories, but on intuition, on a primary analysis of economic data, on the basis of which we assume that there are relations of cause and effect between different variables that are specific to the analyzed phenomenon.

For the realization of a econometric analysis, we usually choose an econometric model which we consider to be suitable on the researched phenomenon, without taking into account the details of the creation of the model, because these models have been validated and accepted by mathematical-statistical methods by specialists in this field.

To perform the sewerage tariff analysis we used a model based on a multiple linear regression.

Linear regression analysis is defined as "a statistical technique that can be used to analyze the relationship between a single dependent variable (criterion) and multiple independent variables (predictors)" (Bezerra et al., 2020). Statistical analysis based on multiple linear regression verifies the existence of a strong relationship between a dependent variable and several independent variables (Porto and Philippi, 2018).

In the case study we performed an econometric modeling of the cost of sewage in Romania.

4. Results

As the first step of econometric modeling we statistically analyze the available data and define the variables of the model, as the second step we devise an equation that we consider mathematically shaping the researched phenomenon and as the third step we test the model obtained and formulate conclusions and forecasts based on the model.

The econometric model developed and presented makes possible the analysis of the cost structure in the tariff, in the water and sewerage industry (the service sector) in Romania. Data were collected from 41 of the regional operators over the period 2012-2019 with the help of the Romanian Association of Water and is representative at the level of the sector of national industry, because two regional operators are missing from the database. Linear regression was performed on data from the year 2012-2019.

The econometric model developed is multiple linear regression and can provide a forecast for the dependent variable, which is the avarage water tariff, with the inclusion of independent variables, called predictors.

In terms of the literature, the multiple regression model has the following general formula:

$Y= \beta_0+\beta_1*X_1+\beta_2*X_2+\beta_3*X_3+\beta_4*X_4+\beta_5*X_5+\beta_6*X_6+\beta_7*X_7+\varepsilon$

Where,

Y = The water tariff, the dependent variable (endogenous);

β_0 = the constant parameter;

β_1 up to β_7 = the independent variables, the explanatory or exogenous;

ε = The error variable, interpreted as the residual error that explain the variation of Y due to factors that are not included in the model;

The above model will show a linear relation between the dependent variable and the independent variables. By applying the econometric model, by replacing the values for the independent variables to obtain the value for the dependent variable Y, with the margin of error with an error acceptable.

Our assumptions of the research were the following:

- *H_1: Companies in the water and sewerage sector which increase staff costs per m_3 of sold water will significantly increase the waste water tariff per m_3.*
- *H_2: The companies in the water and sewerage sector where third-party services are grown per m^3 of sold water will significantly increase the waste water tariff per m^3.*
- *H_3: The companies in the water and sewerage sector where electricity costs are increased per m^3 of sold water will significantly increase the waste water tariff per m^3.*
- *H_4: The companies in the water and sewerage sector where the costs of the consumed materials per m^3 of sold water increase will significantly increase the waste water tariff per m^3.*
- *H_5: The companies in the water and sewerage sector where they increase cost with depreciation per m^3 of sold water will significantly increase the waste water tariff per m^3.*
- *H_6: The companies in the water and sewerage sector where they increase cost with depreciation per m^3 of sold water will significantly increase the waste water tariff per m^3.*
- *H_7: The companies in the water and sewerage sector where they increase cost with depreciation per m^3 of sold water will significantly increase the waste water tariff per m^3.*

The data were prepared, following the steps provided in the statistical analysis. It was checked if the data is parametric. Although not all data have a normal distribution, based on the Central Limit Theorem, if the data exceeds 40 positions the data can be considered normal. There were no multidimensional outliers and the correlations between the average sewage tariff and the defined variables were studied.

The dependent variable is the average tariff of water and potential predictors are the following: staff costs per m^3, costs of services provided by third parties per m^3, costs of raw water per m^3, electricity cost per m^3, costs of the consumed materials per m^3, depreciation cost per m^3, royalty costs per m^3.

We have analyzed the correlations between the dependent variable and the above mentioned variables.

In the model on the basis of correlations have been introduced the variables from Table no.1.

Table no. 1 The variables in the model of linear regression

Indicators	**Staff costs per mc**	**Costs with services provided by third parties per mc**	**Electricity costs per mc**	**Material costs per mc**
Pearson Correlation	,698**	,479**	,439**	,476**
Sig. (2-tailed)	,000	,000	,000	,000
N	333	333	332	332
Indicators	**Depreciation costs per mc**	**Royalty costs per mc**	**Maintenance and repair costs per mc**	**Other operating costs per mc**
Pearson Correlation	,388**	,255**	,334**	,185**
Sig. (2-tailed)	,000	,000	,000	,001
N	331	331	328	333

Note: **. The correlation is significant at p<0.01, meaning an estimation error of less than 1%.
*. The correlation is significant at p<0.05, meaning an estimation error of less than 5%.

Source: benchmarking system of the Romanian Water Association - http://h2obenchmark.org/

Summary of the model is presented in Table no.2.

Table no. 2 Model Summary for the dependent variable the average tariff of water

Model	R	R^2	Ajusted R^2	Standard estimation error	Durbin - Watson test result
1	,698[a]	,487	,485	,46171	
2	,770[b]	,593	,591	,41187	
3	,788[c]	,621	,618	,39789	
4	,803[d]	,646	,641	,38558	
5	,812[e]	,660	,654	,37852	
6	,827[f]	,685	,679	,36486	1,791
a. Predictors: (Constant), Staff costs per mc					
b. Predictors: (Constant), Staff costs per mc, Costs with services provided by third parties per mc					
c. Predictors: (Constant), Staff costs per mc, Costs with services provided by third parties per mc, Material costs per mc					
d. Predictors: (Constant), Staff costs per mc, Costs with services provided by third parties per mc, Material costs per mc, Royalty costs per mc					
e. Predictors: (Constant), Staff costs per mc, Costs with services provided by third parties per mc, Material costs per mc, Royalty costs per mc, Maintenance and repair costs per mc					
f. Predictors: (Constant), Staff costs per mc, Costs with services provided by third parties per mc, Material costs per mc, Royalty costs per mc, Maintenance and repair costs per mc, Other operating costs per mc					
g. Dependent Variable: Average waste water tariff					

Source: benchmarking system of the Romanian Water Association - http://h2obenchmark.org/

Since R^2 has the value of 0.685 and the adjusted R^2 has the value close to it, the econometric model is a good model. R^2 shows us that the econometric model explains 68.5% of the cases in the sample.

In the model the variables were introduced one by one and its done the ANOVA analysis, whose results are presented in tables no.3

Table no. 3 ANOVA analysis for the dependent variable the average tariff of water

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	65,588	1	65,588	307,667	,000[b]
	Residual	69,070	324	,213		
	Total	134,659	325			
2	Regression	79,865	2	39,932	235,394	,000[c]
	Residual	54,794	323	,170		
	Total	134,659	325			
3	Regression	83,682	3	27,894	176,194	,000[d]
	Residual	50,977	322	,158		
	Total	134,659	325			
4	Regression	86,934	4	21,734	146,183	,000[e]
	Residual	47,724	321	,149		
	Total	134,659	325			
5	Regression	88,810	5	17,762	123,970	,000[f]
	Residual	45,849	320	,143		
	Total	134,659	325			
6	Regression	92,192	6	15,365	115,421	,000[g]
	Residual	42,467	319	,133		
	Total	134,659	325			
a. Dependent Variable: Average waste water tariff						
b. Predictors: (Constant), Staff costs per mc						
c. Predictors: (Constant), Staff costs per mc, Costs with services provided by third parties per mc						
d. Predictors: (Constant), Staff costs per mc, Costs with services provided by third parties per mc, Material costs per mc						
e. Predictors: (Constant), Staff costs per mc, Costs with services provided by third parties per mc, Material costs per mc, Royalty costs per mc						

f. Predictors: (Constant), Staff costs per mc, Costs with services provided by third parties per mc, Material costs per mc, Royalty costs per mc, Maintenance and repair costs per mc
g. Predictors: (Constant), Staff costs per mc, Costs with services provided by third parties per mc, Material costs per mc, Royalty costs per mc, Maintenance and repair costs per mc, Other operating costs per mc

Source: benchmarking system of the Romanian Water Association - http://h2obenchmark.org/

From the results of the ANOVA test it can be seen that the value of the Fisher test has high values which confirms the overall significance of the variables selected in the model. The degree of significance p> 0.01, ie the probability of model error is 1%.

When performing the statistical analysis, collinearity tests were performed that confirmed the validity of the model and the non-correlation test of errors with Durbin-Watson was performed, which has corresponding values.

After following the steps above outlined, as a result of the statistical analysis we have the following coefficients in the model (table no.4).

Table no. 4 Coefficients of linear regression

Model	Coeficienți nestandardizați		Coeficienți standardizați	T	Sig.
	B	Eroarea std.	Beta		
(Constant)	,873	,064		13,564	,000
Staff costs per mc	,751	,049	,528	15,259	,000
Costs with services provided by third parties per mc	1,735	,202	,296	8,572	,000
Material costs per mc	1,047	,280	,138	3,738	,000
Royalty costs per mc	,736	,151	,164	4,887	,000
Maintenance and repair costs per mc	1,600	,485	,111	3,297	,001
Other operating costs per mc	,724	,144	,162	5,040	,000

Source: benchmarking system of the Romanian Water Association - http://h2obenchmark.org/

The resulting linear regression model has the following formula:

Average waste water tariff =0,873 + 0,751*Staf cost/m^3 + 1,735* Costs serv. prov. third part./m^3 + 1,047* Costs of the consumed materials/m^3 + 0,736*Royalty cost/m^3 + 1,600* Maintenance and repair costs per mc /m^3 + 0,724,* Other operating costs/m^3 + Ɛ.

Interpretation of the result: If the staff costs increase by one unit, i.e. 1 ron/m^3, and the other variables remain constant, then the average waste water tariff /m^3 increases 0,751 lei.

If the royalty cost/m^3 increases with 1 Ron, the other variables remain constant, then the average tariff of water/mc increases with 0,736 Ron.

5. Conclusions

The construction of a linear regression for a branch of the national economy is a real challenge today. We believe that through the present research we make it possible for the non-specialists in the field of water and sewage, by applying the linear regression to be able to predict changes in the water tariff, the product of the inflationary effects and the increase of the minimum wage on the economy.

From the assumptions made in this research confirmed the H1, H2, H4, H6, H7, i.e. through statistical analysis or found links between dependent variable the average tariff for potable water/m^3 and the costs with the staff/m^3, the expense fee costs services rendered by third parties costs with electrical energy, depreciation costs, all calculated based on m^3.

It is noteworthy that the variable cost of raw water purchased, could not be included in the model. This is explained by the fact that the level of water losses is very different from operator to operator.

Under current conditions when there is an increase in the minimum wage on the economy, knowing that the salary scales of water and sanitation operators are based on a minimum wage, we can calculate a 10% increase in wage costs. By applying the above model, it results that the national effect will be an average increase of 0.07 lei / m^3 of the average water tariff. And the effect on the basket of a household will be 1 leu /month/ household.

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Study on the Influence of Economic and Social Factors on the Financing of National Defense

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Abstract

In the Romanian literature and current research, the financing of national defense is a less debated topic. Most studies are conducted mainly for developed countries, which also have the most advanced military systems and focus only on the correlation between military spending and the economy.

The objective of the paper is to investigate the correlation between the evolution of military spending in Romania during 1919-2012 on the one hand, and economic, political and social factors, on the other.

The empirical study performed used the linear regression model, estimated by the least squares method (OLS), using the statistical software EViews 10.

The results of the study showed that the level of financial allocations to the defense budget were largely influenced by the level of economic and social development of Romania during the research period as well as by the options of political decisions.

Key words: national material capabilities; military spending; regime type; economic growth
J.E.L. classification: H11; H50; H53; H56.

1. Introduction

It is important for all nations to know the benefits of the democratization process, with all the civil rights and opportunities for economic development that flow from the political system. In addition to the fact that it is important to understand the social needs that determine the transition to democracy, it is equally important to understand the factors that restrict or allow the consolidation of democracies. In his work (Brauner, 2015, p. 75) considers military power to be a factor influencing both the democratization of states and economic development.

The army is a tool of force, which can be likened to a double-edged sword. On the one hand, in the case of authoritarian or semi-democratic regimes, the army can be used as an instrument of undermining, repressing and consolidating power - there have been many cases when the army (or with their help) staged coups, the most recent being the removal from power of the President of Egypt - Morsi, by the army in July 2013 (Kirkpatrick, 2013). On the other hand, in the case of democratic regimes, the army is itself the guarantor of democracy, constitutional sovereignty and national freedom.

Being an important and sensitive factor at the same time, quite little investigated in the specialized economic literature, we set out to research the budgetary financing of the Romanian Army in the period 1919-2012 as well as the correlation between the military system, indicators that define the resources and capabilities of the national economy, (National Material Capabilities, 2020), and the political regime.

The data needed for the empirical study on defense financing as well as national economic capabilities were collected / processed from the Organizations' website: Correlates of War (COW), Stockholm International Peace Research Institute (SIPRI), Freedom House Index and Polity IV/V.

Data on the democratic regime and the quantification of the level of democracy are represented by the indicator *lexical index,* defined on the platform Harvard Dataverse, which quantifies the level of democracy through a series of necessary conditions defined by 5 sub-indicators.

The research includes the period between the First World War and the year 2012. This interval was used, due to the limited availability of data on specialized platforms.

2. Literature review

Regardless of the political regime, the main role of the army is to guarantee and ensure national peace and security in a state. However, too high a level of military power can be a very sensitive issue in both authoritarian and democratic states (Brauner, 2015).

Acemoglu (Acemoglu, Ticchi, & Vindigini, 2010) defines the army as a key factor in the survival of a dictatorship, but at the same time says that a strong army is also the main threat to power.

Through his study (Leon, 2010) investigates the effect of military spending on the risk of a coup. The study analysed a group of 153 countries for the period 1963-1999 and found that military spending has a negative effect on the likelihood of coups.

As for the armies of democratic states, it is known today *the principle of political control over the armed forces*, principle rooted in representative democracies (NATO, 2008). This principle refers to the supremacy of civilian institutions, through popular sovereignty, over the security apparatus, including over military leadership. In a democracy, there are strong constitutional guarantees that protect the state - including the armed forces - from two types of potential dangers: politicians who have military ambitions, and soldiers who have political ambitions.

Maintaining too high a level of military power, without threats or a high security risk, cannot be an effective measure in the case of democratic or authoritarian regimes. Politics, budget planning and defense must work together effectively to prevent a new "arms race" that is virtually a brake on the economy. (Roland, 2006). In democratic states, policy defines strategy and maximizes military capabilities within given resources, discouraging any threats and, if necessary, forcibly defending territorial integrity.

From an economic point of view, military spending can have two effects (Rahman & Siddiqui, 2019): the effect of supply and demand. The demand effect consists in the fact that the military system increases the demand for goods, services, materials, equipment from the economic environment; it creates jobs and indirectly contributes to economic progress. The supply effect, from the point of view of opportunity cost theory, takes into account the following aspect: if military spending increases and accounts for a large part of a state's budget, then this will impoverish other government sectors, will affect investment and capital in civil economic activities (Tao, Glont, Li, Lobont, & Guzun, 2020).

On the other hand, economic development can have adverse effects on military budgets (Chang, Huang, & Yang, 2011). Thus, a prosperous economy could provide more funds and resources for both defense budgets and other public services (Alexander, 1990). In any case, economic growth does not mean an increase in military budgets at the same time (Tao, Glont, Li, Lobont, & Guzun, 2020).

3. Research methodology

The objective of the study is to highlight the economic situation of the army and to determine the dynamic correlations that existed between military power and economic and social and political indicators in Romania during the period 1919-2012. The study took into account the way the army is financed, the correlation between the military system and the indicators that define national economic resources and capabilities (National Material Capabilities, 2020), as well as the political regime.

A database composed of indicators was built, taken from open sources, as well: Correlates of War (COW), Stockholm International Peace Research Institute (SIPRI), Harvard Dataverse, Freedom House Index and Polity IV/V, NATO, UE, OSCE.

Since data were collected from different sources, their simultaneous availability was possible only in the period between the First World War and 2012.

The basic empirical specification transposes the selected indicators into variables and has the following general regression equation:

$$Milex_{it} = \alpha + \beta_1 xMileper_{it} + \beta_2 xGDP_{it} + \beta_3 xPEC_{it} + \beta_4 xLEXICAL_INDEX_{it} + \beta_5 xIRST_{it} + \beta_6 xCINC_{it} + \beta_7 xTPOP_{it} + \beta_8 xUPOP_{it} + \varepsilon_{it} \quad \text{eq(1)}$$

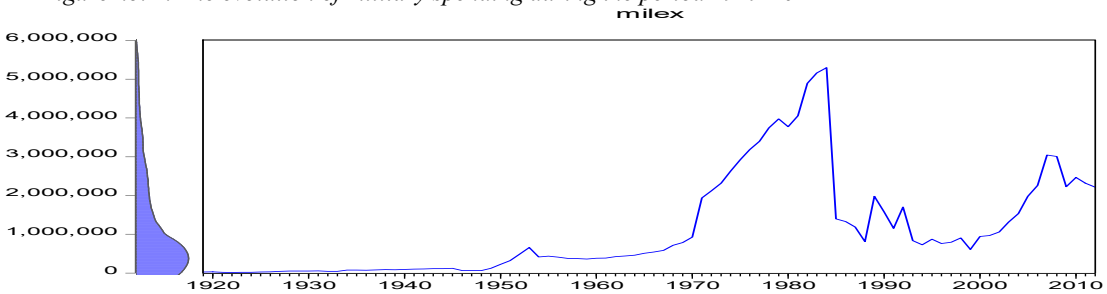
where *i* represents the country (Romania), *t* represents the years (from 1919 to 2012), α represents the constant, and ε it represents the error term.

Based on the equation, the causality between military spending and economic and social and political indicators considered was determined.

The continuation of the study presents the evolution of the indicators used, as follows:

- Military spending (milex) - thousands of dollars this year:

Figure no. 1. The evolution of military spending during the period 1919-2012

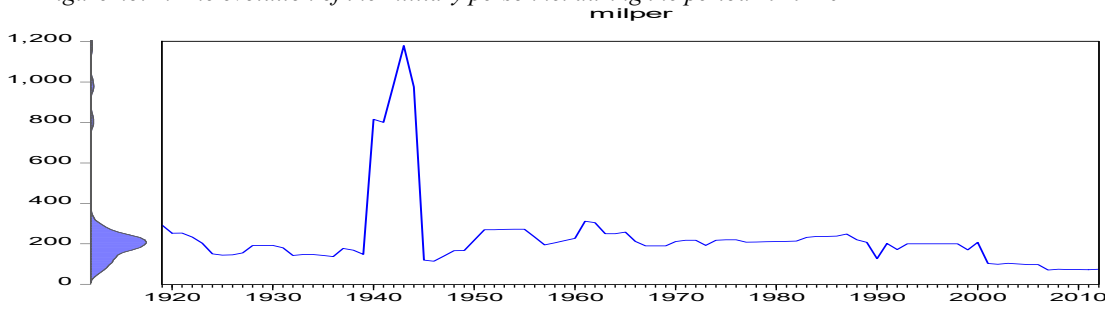


Source: authors' own processing

It is found that this value of this indicator increased constantly, registering the highest levels between 1970-1987, a period in which the leading regime was of the socialist type.

- Military personnel (mil pers):

Figure no. 2. The evolution of the military personnel during the period 1919-2012

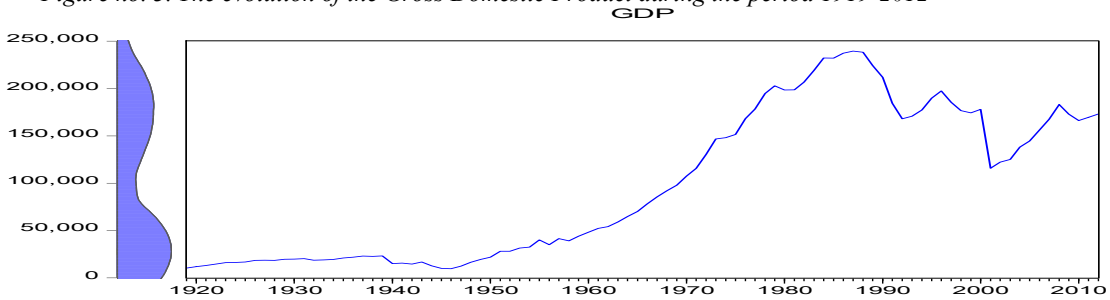


Source: authors' own processing

It is observed that this indicator registered an average density around about 200,000 soldiers between the periods 1920-1939, 1946-2000, registering the highest level between the years 1940-1945, a period that coincides with the Second World War. It is also observed that after the year 2000, the number of soldiers decreased, due to the pre-accession processes to NATO, and the transition from the concept of compulsory army to a professional army on a voluntary basis.

- Gross domestic product (GDP) million dollars this year;

Figure no. 3. The evolution of the Gross Domestic Product during the period 1919-2012

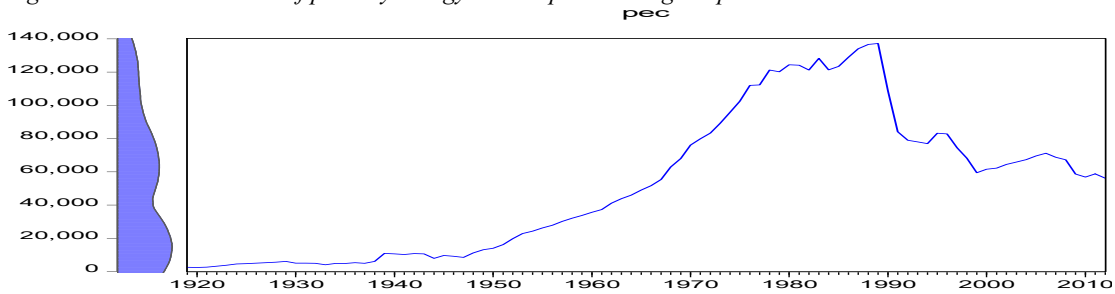


Source: authors' own processing

The indicator recorded an average density of around $ 45,000 million between 1920-1965; and an average density of $ 175,000 million between 1966-2012; registering the highest values between 1985-1988, a period that coincides with the socialist regime's effort to pay Romania's foreign debts.

- Primary energy consumption (pec) - thousands of tons of coal (or equivalent);

Figure no. 4. The evolution of primary energy consumption during the period 1919-2012

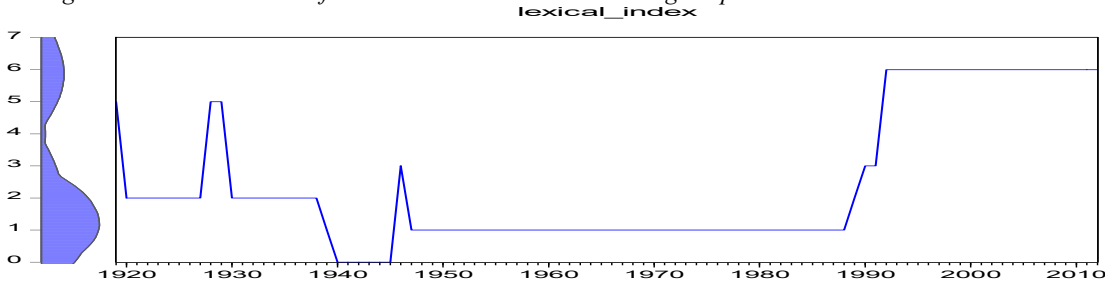


Source: authors' own processing

It is observed that the highest level of average density of this indicator was registered between the periods 1960-1990; period that coincides with the accelerated pace of industrialization existing in Romania.

- *the democracy index* (lexical_index) – a score from 0 to 6 (0 for authoritarian regimes, and 6 for fully democratic regimes)

Figure no. 5The evolution of the Lexical index indicator during the period 1919-2012

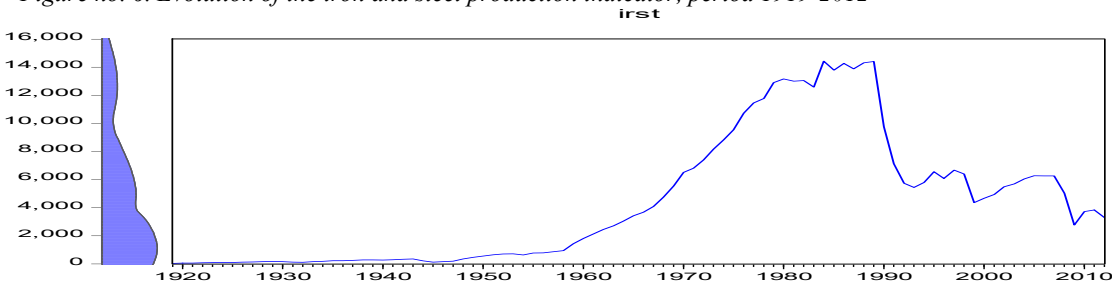


Source: authors' own processing

From the evolution of the indicator that reflects the level of democracy during the period included in the research, it is found that in the period of constitutional monarchy, the density is around 2, with a maximum level of 5 between 1928-1929 and a minimum level between 1940 -1 945. During the socialist regime, this indicator was constantly around the value of 1. In the period 1990-1991, the indicator was at the value of 3 and since 1992 the indicator is constantly at the figure of 6, which means a completely democratic level.

- Production of iron and steel (irst) - thousands of tons;

Figure no. 6. Evolution of the iron and steel production indicator, period 1919-2012

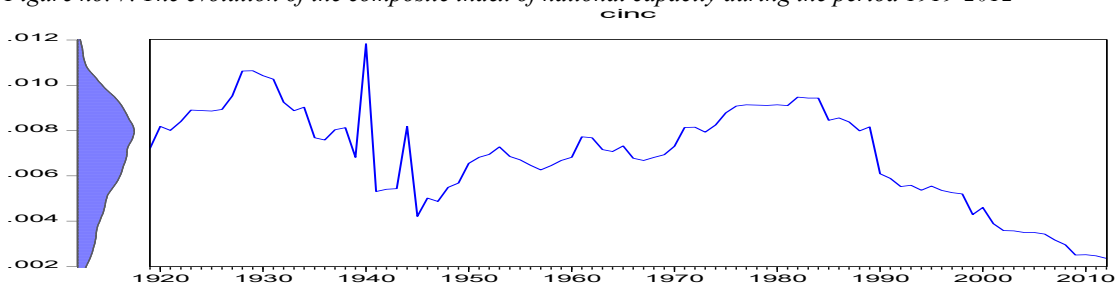


Source: authors' own processing

The indicator registered an accelerated growth starting with 1950, which continued until 1988, a period that coincides with the massive industrialization in Romania. Since 1990, the production of iron and steel has steadily decreased to an average density of 2,000 thousand tons per year.

- Composite index of national capacity (cinc) - represents a calculated score:

Figure no. 7. The evolution of the composite index of national capacity during the period 1919-2012

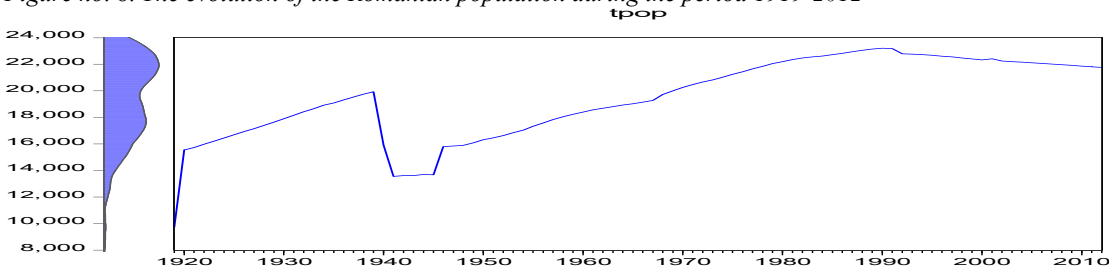


Source: authors' own processing

The index had an average density around 0.008, in the period 1920-1990. Since 1991, the level of the index has been steadily declining.

- Total population (tpop) - thousands of people;

Figure no. 8. The evolution of the Romanian population during the period 1919-2012

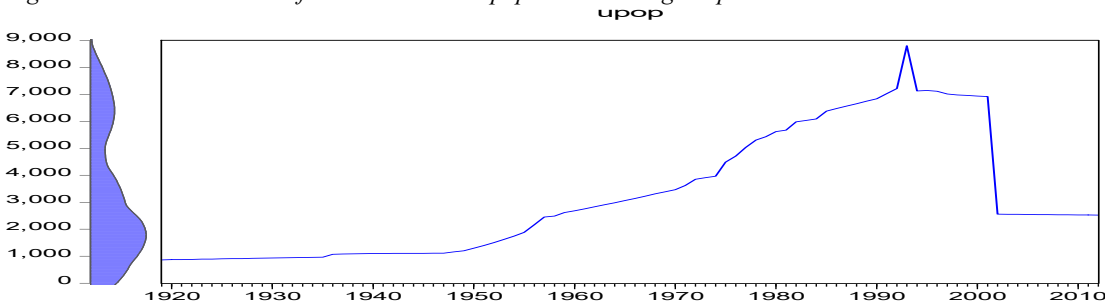


Source: authors' own processing

Around 1920, the population of Romania registered a significant increase, mainly due to the National Union and the registration of the entire population. In the periods 1921-1939 and 1947-1990, the population of Romania registers continuous growth and in the period 1940-1945 the population registers decrease due to the conditions caused by the war. Starting with 1991, the Romanian population registers decreases until the end of the period included in the research.

- urban population (upop) - in thousands (for 1816-2001: population in cities > = 100k; for 2002-2012: population in cities > = 300k);

Figure no. 9. The evolution of Romania's urban population during the period 1919-2012



Source: authors' own processing

It is observed that the urban population registered a continuous growth between 1920-1990. In the period 1991-2000, the urban population registered slight decreases. Starting with the year 2000, the indicator only considers the population of cities with over 300,000 inhabitants, thus observing a constant maintenance of the urban population.

Table no.1 presents the descriptive statistics for each variable used in the empirical specification. The model presented in table no. 1 contains 94 observations, for the period 1919-2012. The table shows that the asymmetry coefficient (Skewness) reflects the negative asymmetry of the national capability index (FIVE), the total population (TPOP) and the urban population (UPOP), as well as the positive asymmetry of the other variables. The vaulting coefficient (Kurtosis) shows the platykurtic distribution of all variables, except for military expenses (MILEX) and military personnel (MILPER) which have a leptokurtic distribution.

Table no. 1 Descriptive statistics

	MILEX	MILPER	GDP	PEC	LEX_IND	IRST	CINC	TPOP	UPOP
Mean	1099981.	229.2340	97729.55	51448.73	2.436170	4324.713	0.006946	19449.66	3200.085
Median	561733.0	200.5000	74064.50	50306.00	1.000000	3165.500	0.007116	19625.50	2548.000
Maximum	5295000.	1179.000	239415.0	137222.0	6.000000	14437.00	0.011827	23207.00	8800.000
Minimum	13430.00	70.00000	9647.000	2477.000	0.000000	25.00000	0.002358	9722.000	868.0000
Std. Dev.	1303408.	183.7700	78819.21	42399.66	2.112729	4577.651	0.002135	2959.385	2266.146
Skewness	1.466176	3.570945	0.318198	0.473875	0.901029	0.893221	-0.338983	-0.642758	0.700818
Kurtosis	4.439378	16.07207	1.507442	2.001712	2.134181	2.611726	2.491944	2.823329	2.105611
Jarque-Bera	41.79280	869.0514	10.31152	7.421328	15.65515	13.09002	2.811225	6.594737	10.82768
Probability	0.000000	0.000000	0.005766	0.024461	0.000399	0.001437	0.245217	0.036980	0.004455
Sum	1.03E+08	21548.00	9186578.	4836181.	229.0000	406523.0	0.652900	1828268.	300808.0
Sum Sq. Dev.	1.58E+14	3140743.	5.78E+11	1.67E+11	415.1170	1.95E+09	0.000424	8.14E+08	4.78E+08
Observations	94	94	94	94	94	94	94	94	94

Source: authors' own processing

The hypothesis from which it was started is the one according to which the level of financial allocations to the defense budget is influenced by the options of political decisions but also by the socio-economic development of Romania.

The research aimed to identify the correlations between the above mentioned indicators, in three time periods, in which there were different regimes of political leadership, respectively monarchy (period 1919 - 1947), socialist system (period 1948 - 1989) and democracy (period 1990 - 2012), in order to highlight the economic, social and political influences on budget allocations to the army.

4. Findings

In the first stage of the study, the regression equation (1) was applied for the period 1919 - 2012, test results reflecting the existence of positive correlations between public spending on the military and the level of GDP, energy consumption, the democracy index and the national capability index. A negative correlation was also established between expenditure on the army and military personnel, population level and iron and steel production (Table 2). In terms of the correlation coefficient, the model is marginally significant, the results obtained suggesting an increase in spending on the army at the same time as the economic and social development of Romania.

Table no. 2. Empirical results

Dependent Variable: MILEX
Method: Least Squares
Date: 11/17/20 Time: 23:25
Sample: 1919 2012
Included observations: 94

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MILPER	-102.1259	523.3479	-0.195140	0.8457
GDP	11.24681	5.584063	2.014091	0.0472
PEC	29.00069	13.82342	2.097939	0.0389
LEXICAL_INDEX	37369.10	69089.08	0.540883	0.5900
IRST	-41.75419	111.6544	-0.373959	0.7094
CINC	71730390	53715776	1.335369	0.1853
TPOP	-45.40465	65.00694	-0.698459	0.4868
UPOP	-388.2940	71.86129	-5.403382	0.0000
C	249589.0	1137908.	0.219340	0.8269

R-squared	0.737125	Mean dependent var	1099981.
Adjusted R-squared	0.712384	S.D. dependent var	1303408.
S.E. of regression	699015.9	Akaike info criterion	29.84358
Sum squared resid	4.15E+13	Schwarz criterion	30.08709
Log likelihood	-1393.648	Hannan-Quinn criter.	29.94194
F-statistic	29.79345	Durbin-Watson stat	0.628541
Prob(F-statistic)	0.000000		

Source: authors' own processing

Next, the study aimed to highlight the socio-political and economic influences on budget allocations to the army in Romania, during the three great political regimes, respectively the period of monarchy (1919 - 1947), period of the socialist system (1948 - 1989) and the recent period of democracy (1990 - 2012). The results obtained following the application of the regression equation (1) for the three periods are summarized in table no. 3.

Table no. 3. Empirical results

Dependent Variable: MILEX
Method: Least Squares
Date: 11/18/20 Time: 14:40

	Sample: 1919 1947		Sample: 1948 1989		Sample: 1990 2012	
	Included observations: 29		Included observations: 42		Included observations: 23	
Variable	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
MILPER	1.067724	0.9759	-24820.80	0.0000	-23373.23	0.0443
GDP	1.707879	0.4580	29.96887	0.0439	16.19704	0.0854
PEC	0.451148	0.8656	-46.52185	0.0585	-34.03907	0.3868
LEXICAL_INDEX	-1964.662	0.6004	926587.7	0.1062	-68796.47	0.8491
IRST	47.45823	0.7878	-263.8973	0.2068	-108.1526	0.6499

CINC	2018724.	0.5107	2.40E+09	0.0000	1.53E+09	0.2738
TPOP	-3.982826	0.3220	-133.9919	0.6399	-1680.098	0.5263
UPOP	252.8742	0.0113	43.16845	0.9044	-189.5970	0.1997
C	-178064.2	0.1020	-8039254.	0.0842	37494222	0.5242
R-squared		0.837246		0.936318		0.835816
Adjusted R-squared		0.772145		0.920880		0.741996
S.E. of regression		15416.21		438980.2		385612.0
Sum squared resid		4.75E+09		6.36E+12		2.08E+12
Log likelihood		-315.4136		-600.2038		-322.7661
F-statistic		12.86063		60.65004		8.908748
Prob(F-statistic)		0.000002		0.000000		0.000243

Source: authors' own processing

The results obtained highlight the differences between the three time periods, in terms of the correlations established between the level of spending on the army and the other variables considered. It should be noted that regardless of the time period, budget expenditures with the army in the case of Romania are positively correlated with the level of GDP and the national capability index but are negatively correlated with the total population.

It is also found that the democracy index has a positive correlation with the financing of the army during the socialist leadership, as well as during the monarchy and in the first part of the consolidation of democracy in Romania. The obtained results suggest an increased desire to consolidate the military power in the socialist period, and much more tempered with the increase of the level of democratization of Romania.

The results obtained from the empirical study confirmed the hypothesis according to which the level of financial allocations to the defense budget is influenced by the options of political decisions but also by the socio-economic development of Romania.

5. Conclusions

The study highlighted the correlations between the level of military spending on the one hand and the level of GDP, energy consumption, democracy index, national capability index, military personnel, population and iron and steel production, in order to ascertain the extent to which military power Romania, was influenced by economic, political and social factors.

The results showed that, among the selected indicators, the highest positive impact on the level of military spending had GDP, energy consumption, the democracy index and the national capability index. The study found a negative correlation between public spending on the army and military personnel, population level and iron and steel production.

Regarding the influence of political regimes, analysed through the democracy index, it was found a positive correlation with military spending, during the monarchy, the socialist political regime but also in the first part of the period of democracy consolidation in Romania (1990-2000).

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A Theoretical-conceptual Approach to the Particularities and Functions of the Stock Markets, in the Context of the Pandemic Period

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Abstract

This study combines characteristics of stock markets that define the conditions under which complex financial mechanisms work.

Through an analysis of the concepts that define stock markets, the study defines their characteristics. The scientific study aims to develop, by similarity, the concept of "suspension spring" as a defining feature, as a behavioural feature of financial markets. This concept expresses the tendency to return to the initial state of the stock exchanges in the event of shocks and to resume the cyclical trend and incorporates in the characterization of the heteroscedastic stock market that it manifests, by analogy with the random flexibility of an arc.

In the context of the health crisis, the paper translates theoretical concepts into recommendations to participants of the stock markets on caution and good practices in decision-making moments, when at this time it is not possible to predict the impact that the Covid-19 crisis will have.

Key words: financial markets, stock market characteristics, financial crisis
J.E.L. classification: G01, G10, G14

1. Introduction

The capital market is the totality of the mechanisms and interdependencies by which the transfer of funds from investors holding a surplus of capital takes place, to those who need capital, i.e. the issuance of securities. These transactions are carried out through specific operators (financial investment companies).

The capital market comprises two segments. The primary market, which is that segment of the capital market, in which new issues of financial instruments are made available to investors. By selling new financial instruments, companies, government or public sector institutions can obtain funding. Once securities are put into circulation on the primary market, they are subject to transactions on the secondary market. This is the market in which financial instruments already issued are traded. The secondary market consists of a stock market and an over-the-counter market where institutional and private investors sell and buy securities issued and put into circulation by the primary market, being the most mobile and representative segment of the free expression of the demand and supply of financial capital. In order to function efficiently, the secondary market must comply with certain requirements; liquidity (abundance of funds and securities); the lowest costs for operational mechanisms; transparency in information, for objective investor decision-making and to avoid monopoly; regulations that provide safety and counter market manipulation trends; adaptability to economic conditions.

The most important institution of the capital market is the stock exchange, the mechanism of which concentrates the supply and demand of securities, in a cumulation of free transactions. The role of the exchange is to ensure the intensive movement of securities at a rate reflecting the public interest in the holding of certain securities, an interest motivated by the economic and financial completeness of the issuer. The stock market is sensitive to all changes in economic, financial-monetary, social and political terms. The efficient functioning of the capital market ensures the prompt redistribution of financial resources between savings investors and economic operators in

need of investment to continue or expand the business. The market gives investors opportunities to place the means and allows companies to grow not only from their own sources, but also by attracting free resources from the economy.

In any society, economies and investments have played a particularly important role, both at the macroeconomic level and at the level of each person or economic operator. Each person or economic operator decides at a time that he or she considers appropriate to waive an immediate advantage or gain (determined by the use of funds available at that time) in view of a future gain (achieved by saving or investing these funds). These individual economies, insignificant if viewed individually, play an important role in the national economy as a whole. Amounts deposited with commercial banks by individuals or legal persons shall be used to grant loans to other individuals and legal persons, thereby financing investments in various economic sectors and contributing to the development of the economy as a whole. Thus, these individual actions take the form, as a whole, of markets with strategic influence at macroeconomic level, developing the mechanism of capital markets.

2. Theoretical background

The concept of stock market and its particularities are subject of study from the beginning of modern financial markets. Based on a fundamental theory framework, the literature has evolved with the structural and conceptual changes that the field has undergone over time.

The study of the characteristic features of stock markets goes to their very definition. The literature defines the stock market by giving it differences of approach and meanings, but retaining its fundamental features. In a classical approach, the "Romanian Law on Stock Exchanges" of 1929 - "Madgearu Law" states that "the exchanges are public institutions created with the aim of bringing together traders, industrialists, producers, shipowners and insurers in order to negotiate public and private values, currencies, currencies, commodities, products, ship rental and risk coverage of all kinds". In essence, regardless of the form it outlines, the literature agrees that it is not the form, but the role of the stock exchange that defines it essentially as an organized and specialized public market where securities, certain goods and currencies are traded.

In this paper theoretic concepts from the academy are studied, having the role of concatenate the particularities of stock markets and translate them into current reality. An awareness of the theories that define financial markets is imperative in order to be able to analyse their behaviour, to predict the evolution and to undertake the most rational and advantageous decisions.

Based on the consolidation of the literature on the features that characterize the capital markets, the paper proposes a new concept that incorporates already known features and that defines the evolution of stock markets concisely and at the same time relevant.

3. Research methodology

The study aims to address the working methodology based on scientific observation, on the basis of which the hypotheses and research models are formulated, which will form the basis for issuing the final conclusions.

In order to carry out an in-depth study, scientific research will start from a bibliographical documentation. This will include primary documents – literature, scientific articles, publications of national and international institutions and bodies, empirical studies, dictionaries and publications.

The research analyzes the literature from the classical definitions of the concept of stock markets to modern in-depth studies, which shape and refine the peculiarities of capital markets. By deepening different points of view of researchers on this subject, the paper reviews the existing theories in academia and issues a new personal approach.

4. Findings

In terms of the role played in a state's economy, the stock exchange may be defined as the physical trading place, as the institution or institutions trading, or it may represent an electronic network hosting platform that facilitate the rapid execution of transactions. Viewed as synthesized by public

limited-liability companies, the stock exchange operates because of the needs that companies have for capital increase, either because it becomes insufficient at a certain time to meet unforeseen needs, or with the intention of developing the company. In this situation, the public limited company has several methods of obtaining it: by contracting a loan granted by a bank, by contracting a loan through a bond issue or by increasing the share capital through a share issue. If the management of the company decides to make a public call for capital, it may issue securities (shares, bonds, derivatives or synthetic products). The action, briefly defined as a value representing a part of the share capital of a public limited company, takes possession of the shareholders and designates the legal relationship between the shareholder and the company, namely the rights and obligations of the shareholder towards the company. The bond is a fixed-income credit instrument that mobilises long-term capital in order to achieve certain objectives. In other words, the bond, either issued by a private company or by a State, is a loan bearing interest payable periodically to the holders of the bonds, the issuer committing to pay them at a specified time. Derivative securities are those stock products resulting from contracts between issuers and purchasers, with beneficiaries to be granted rights to assets at a future maturity in accordance with the agreed contractual terms. Synthetic securities result from the combination of sales and purchase derivatives (futures), through these integrations generating cos securities.

Some exchanges retain the physical plan of trading, but also use electronic transactions. The famous New York Stock Exchange or Tokyo Stock Exchange continues to preserve the fascinating image of "live" transactions, materializing the dynamics and complexity of daily transactions. On the other hand, there are stock markets, such as the London International Stock Exchange, which use only electronic transactions.

Stock markets have the main role of facilitating the accumulation of funds needed to finance economic activity and directing the flow of accumulated funds to the most profitable economic branches. It fulfils this role mainly through the sale and purchase of shares and bonds issued by public limited-liability companies. Those investors whose stated intention is not to become owners, but assuming their participation in risks and benefits, consider participating in the stock market through shares, while investors who do not want to become owners but only creditors, by minimizing risk, decide to buy bonds. Thus, the stock market is a point of interest from several perspectives, agreeing to take over the management of some companies by significantly acquiring shares or ensuring short-term profits by forecasting the change in the share price.

Starting from the classical approach of terminology and taking into account the didactic side of the theoretical aspects, A. Caraganciu mentions four fundamental characteristics of the stock exchange, as follows: atomicity (the existence of a large number of sellers and buyers who have the opportunity to negotiate equally, without one of the "players" having the possibility to disproportionately influence); homogeneity of goods and values subject to the sale-purchase process; adaptability – a binding principle, which gives the market the opportunity to model according to the economic context for uninterrupted functionality; fairness and transparency, which is based on stock market regulation and full and accurate investor information.

Over time, the academic iteration outlines a number of characteristics of stock markets, the defining purpose of which is to base from a theoretical-conceptual point of view the mechanisms that develop their complex functionality and which is detailed in the following.

4.1. Regulation

The main feature of financial assets is to materialise through intangible liquid assets, the value of which derives from a contractual clause. The fundamental aim of financial markets is to stimulate economic growth. In the context of the increasing globalisation of recent decades, the process of liberalisation and unification of financial markets, and support for technological development, the economic and financial mechanism generates new investment opportunities based on the low costs of capital transactions and foreign capital inflows.

The defining feature of any stock exchange (of securities or commodities) is the meeting, at the same time and location, of a large number of buyers and sellers, who sell and buy multiple items or values simultaneously. The Stock Exchange shall provide the regulated framework within which these transactions are conducted without any self-interest, ensuring that market participants have a strict and equidistant trading environment. The Stock Exchange is an institution with legal

personality, in which organized transactions in securities, rights and securities are held, executed according to established rules, unequivocally observed by all participants. Stock markets are now strong and sometimes decisive influences for business and macroeconomic, indisputable proof that they have become one of the most important pillars on which contemporary reality is based. Thus, the stock market is characterised as an organised market, in the sense that transactions are carried out according to principles, rules and rules known and accepted by all participants, which does not mean market management, but its regulation for the purpose of drawing the conditions for the conduct of free competition.

4.2. Dynamics

The financial market cannot be approached individualistically, but as a permanently dynamic and integrated component in the economic-financial, and even social, mechanism of a company. In their paper analysing the financial market during the economic crisis, Fauzi and Wahyudi identify three factors leading to the stabilisation of integrated stock markets. The first is globalisation, which also impacts non-financial markets. The second factor is an increasing number of companies selling their shares in two or more different value markets. The last factor is related to the theory of the efficiency of the regional stock market where there is matching information between the prices of various financial assets in different stock markets. Kenourgios and Samitas conclude that an integrated regional market is proving to be much more efficient compared to a segmented national market and in the long term it avoids the non-systematic risk of stocks.

4.3 Integration into economic reality

Another defining aspect for stock markets is their correlation with economic reality. Exchanges trade values as representative of the economy as they are non-tangible. The main purpose of a stock exchange is to raise the capital found in the economy, redirecting it to the most profitable segments. On this premise, the stock market can be defined as the space in which the information derived from the macroeconomic environment, at national or international level, is found. With this perspective, the stock market becomes the transposition of the economic environment, evolving dependent on stability and predictability. It should be noted, however, by reverse optics, that the stock market is the most conducive place for financial crises and speculative bubbles, the consequences of which can be reflected in the real economy and which can have a significant impact on the global economy as a whole.

4.4 Volatility

A particularly important feature of stock markets is volatility. In finance analyses, volatility is the characteristic that measures the magnitude of the variations suffered by a particular financial instrument. Speaking of capital markets, the great economist Keynes would say, "Nothing is more dangerous than a rational investment policy in an irrational world." In his work, Shiller supplements the assumptions of classicism in finance, emitting the theory that stock market increases and descriptions cannot be predicted by a constant rate.

Volatility is a quantifiable feature of stock markets, defined as the rate at which the price of a security increases or decreases for a given set of yields. Volatility shall be measured by calculating the standard deviation of annualised yields over a given period of time. It shows the range at which the price of a share can rise or fall. The volatility is an indicator of the level of risk. It is used in the market pricing formula to assess fluctuations in asset yields, indicates stock index-setting behaviour and helps to estimate fluctuations that may occur in a short period of time. Thus, if the prices of a guarantee fluctuate rapidly in a short period of time, it is called having high volatility. Otherwise there is talk of low volatility when the prices of a value fluctuate slowly over a longer period of time.

In principle, volatility and profit relate inversely-proportionately: the higher the short-term profit, but the higher the volatility, that financial instrument is considered riskier and the greater the exposure to losses. By contrast, a lower volatility financial instrument is considered less risky. By default, volatility is the basis for determining risk and is a challenge in terms of predictability.

Volatility is not synonymous with risk. When interpreted as uncertainty, it is an essential contribution to investment decision-making and portfolio creation. Investors and stockbrokers have certain accepted levels of risk that they consider to be accepted. A good prediction of asset price

volatility during the investment holding period is a good starting point for assessing investment risk. Volatility thus becomes the most important variable in the pricing of derivatives. To determine the price of a security, we need to know the volatility of the underlying asset. Moreover, derivatives that are valued on the basis of volatility themselves may be purchased, in which case the definition and measurement of volatility will be clearly specified in derivative contracts. In these new types of contracts, volatility becomes the underlying "asset" itself. Therefore, in the case of these considerations, a forecast of volatility and a second prediction of volatility in the period defined

In an analysis on the impact of volatility on the Bucharest Stock Exchange, applying the Garch-M model over a period of 16 years, Panait and Slavescu conclude that it cannot be statistically proved, a clear correlation between risk and future yield, this hypothesis being previously validated by many authors. The study also noted that there was a general trend in conditional volatility, with some monthly time intervals tends to return faster to the long-term average, compared to conditional volatility for shorter time intervals. The impact of weekly conditional volatility has been reduced compared to daily conditional volatility, meaning that weekly conditional volatility tends to return to the long-term average more quickly.

One of the most important factors affecting the volatility of a capital market is the information of that market. But as it spreads rapidly between other capital markets, so volatility can also transfer with it. This phenomenon is known in the literature as the "spill over effect". It refers to the impact that an event occurring in a state causes, apparently unrelated, an impact on the financial markets of other nations. Although there are positive propagation effects, the term is most commonly applied to the negative impact that an internal event has on other geographical points. Of course, the spill over effect tends to increase in the case of closer connections in states, for example between European Union member countries or between the United States and Canada.

Engle, Ito and Lin deepen scientific research on the phenomenon of propagation, identifying two forms of it. The concept of 'heat wave effect' implies that the volatility of a financial asset is influenced by internal factors, such as past shocks and the square of errors in the conditional average equation of yields, in this case the impact of the event having a local and regional spread. The second form of manifestation of the spill over effect is called a 'meteor shower', which has in a short time global implication and causes a high level of volatility.

The established index of the estimate of financial market volatility is VIX. (CBOE Volatility Index). It calculates the default volatility of the S&P 500 index. Given that volatility is a measure of the degree of assumed risk that is projected in the share price and relates to the most representative index of the dominant US stock market, VIX is considered an indicator of the feeling of fear of financial markets globally. VIX is considered by many to be an indicator of the ratio of suspicion to risk on the stock market. By using a wide range of share prices, the index provides an indication of the implied volatility of 30 days at the share market price of the S&P 500 index. Thus, the VIX index records values inversely proportional to the performance of the S&P 500. The analysis of the VIX index, however, must be based on the degree of influence that the dominant has in relation to the market under consideration. An example is Shaikh's scientific research, in which he approaches a comparative study the evolution of India's emerging market against the VIX index, with developed financial markets, in the light of events that have influenced major economies. Thus, it has been observed that the various crises that have taken place in European countries have not affected the Indian economy so much, as the local economy is not dependent on these European economies; on the other hand, the stock market suffered losses at the time of the crisis in Russia in 2014, being in a relationship of interdependence with it. These assumptions were also scientifically proven by comparing the VIX index, which recorded an unusually high value in India during the Russian crisis, which translates into a high level of volatility caused by uncertainty. A similar phenomenon occurred in September 2014, when the Indian stock market was affected by the crisis of the Chinese stock market and in this case the correlations with the degree of market volatility were confirmed.

4.5 Contagion

In the context of globalisation, contagion reflects that appropriation that cannot be ignored in any area of modern society. Socially, culturally, technologically, in terms of mobility and exchange of goods, information and ideas, the global intersection is indisputable. And economically and

financially, contagion characterizes and even more, radically influences the current mechanisms of interrelationship worldwide.

The Financial Contagion was defined as "the transmission of shocks between countries and the generic effects of contagion between countries". Despite the fact that it is seen as an economic abnormality, which is visible only in certain difficult-to-predict contexts, financial contagion cannot be ignored, but on the contrary, it is a phenomenon long studied, with a view to a better understanding, through the prospect of forecasting and effort to control and minimize its negative effects.

Academic literature defines the contagion of financial markets through different approaches. Studied globally, through the prism of events with negative economic impact, scientific researchers agree on the importance and influence that this phenomenon exerts on financial markets.

King and Wadhwani points to a significant increase in interdependence between the United States of America, on the one hand, and the United Kingdom, on the other, during the 1987 crisis. Lee and Kim not only highlight the contagion generated in 1987, but also shows its expansion beyond developed financial markets, involving emerging markets. Calvo and Reinhart had studied on the subject of contagion, confirming this time on another case study, namely the crisis in Mexico in 1994.

Bae, Karolyi, and Stulz define financial contagion as the simultaneous emergence of extreme co-overshoots of return between two financial markets, following an increase in unexpected volatility in one of the markets when the stock market collapses. A similar theoretical-conceptual approach also emits Horváth, Lyócsa and Baugöhl characterize contagion as a negative effect in the context of economic crises. The authors also add to the original definition a new aspect, namely that we can define contagion in a broader sense without identifying ourselves a priori of a period of crisis; a contagion event can also occur in the short term (even a day), which may be negligible in a forward-looking analysis, but which causes unexplained behaviour only through internal factors. The same study issues as a proven conclusion on the basis of scientific research that evidence of financial contagion is found for the emerging markets included in the studio, respectively the Czech Republic, Croatia, Hungary, Poland, Estonia and Romania). As a final conclusion of the paper, the authors argue that the phenomenon of contagion is presently independent of the monetary policy regime adopted by the countries.

The year 2020 and the Covid-19 crisis led to a new emergence of the phenomenon of financial contagion. V. Ionescu points out in the interview for www.piatafinanciara.ro that this context has generated a generalized uncertainty, resulting in a high volatility and causing a high level of contagion, recording the highest values since 2011 (when Romania felt the effects of the crisis). Regarding the international context and the national financial market as an integral part of the European mechanism, Ionescu mentions that Romania is influenced by the risk factors found in the capital markets of the region, such as Poland, Austria and Hungary.

In the same context of financial contagion, Samarkoon draws attention to the difference between contagion and interdependence. Terms may have a common result but should not be confused. In his paper, Samarkoon examines the phenomenon of extending the financial crisis in the United States to 62 emerging and border countries, including in the study Central and Eastern European countries.

The literature, however, shares different points of view. One example is Forbes and Rigobon, which contradict the conclusions of Lee and Kim's 1993 paper, mentioned above, and promote interdependence as a causal factor, exemplifying the economic crises in Mexico in 1994 and Asia in 1997 and based on research based on 24 developed and emerging countries.

4.6 Time variations and limited predictability

The changes over time in the evolution of stock markets are one of the main characteristics of these financial mechanisms, in their study and estimation being involved all participants of the stock market environment. Bond investors study historical yields using wide time intervals but, for logical and empirical reasons, their estimates of potential long-term yields almost always start from market yields. Equity investors rarely use dividends, when assessing expected long-term returns. This is due to the fact that they expect profitability to be constant in the long term. Long sampling periods provide better estimates, which hide the extreme developments in the short term, as long as the market does not undergo some fundamental structural changes.

Scientific studies addressing this theme have adopted in the United States and started by focusing on the returns of the capital market here. Starting in the interwar period (Smith in 1924) and continuing until the 1970s (for example Fisher and Lore in1964 or Ibbotson and Sinquefiel in 1976), the literature analysed stock market yields focusing on the North American region, considered the most evolved stock market.

In the 1980s, the literature provided empirical evidence in favour of predictability over a number of times. Proponents of stock market behavioural theories have concluded that in the short term the predictability of market yields can be more easily estimated, but long-term predictability is more promising. Thus, share prices tend to return over time to the average and capital market yields are directly influenced by dividend yields.

The literature from the 1990s refines the prediction methodology of stock markets, developing rational, risk-based models and irrational models, which integrate behavioural factors applied into the forecast analysis of stock market values over a wide time frame. Shiller highlighted the predictive capacity of a market valuation indicator known as the 'cyclically adjusted price/profit index', also known as 'Shiller P/E' or 'CAPE', whose advantage is to balance profitability over a 10-year period and adjust profit and price with the rate of inflation.

In conclusion, contemporary academia, adapted to the new needs and challenges of today's economic and financial environment, agrees that changes in stock markets over time are a determining factor in the estimation of financial developments, without which it is not possible to predict yields. Chambers and Dimson point out that any time variation in expected yields can be explained either by rational theories or irrational theories. Rational explanations include time-variable volatility, time fluctuations in the sense of risk-taking aversion, and the risk of spontaneous calamities. The analysis of the time series borrows a main intuition from the cross-cutting analysis: assets that perform poorly in bad times should earn higher returns as a form of compensation. Irrational explanations are often based on variations in investor sentiment over time, on the natural alternation of participants' feelings that swing between greed and fear, but also on social or political events that incomprehensibly affect collective behaviour.

4.7 Globalisation

In the 2000s, the theme of the profitability of stock markets over time was updated in the literature because of the mutations experienced by the globalization effect. Jorion and Goetzmann, as well as Dimson, Marsh and Staunton highlighted the complexity of the estimation process in the new context of the integration of national markets, recognising the need to develop new methods of analysis and foresight. Thus, in the following years, the concept of average profitability was adapted to allow for a variation over time in cash or bond yields or inflation, plus a constant capital premium. Dimson, Marsh and Staunton analyse a compound real annual yield of 5% for world shares between 1900 and 2015 and a 3.2% capital premium for global bonds. Thus, the average historical real yield of 5% can be extrapolated as a projection of the forecast in a similar percentage for the expected constant yields.

In view of the experiences gained in decades of stock market developments, Shiller's theoretical analyses in the 1990s come to be fundamental and to be found in the practice of the last decades. Through the context of globalisation, labour market integration and mergers, researchers are committed to the difficult task of predicting market developments in the new context and implicitly to answer the question "What is the "normal" risk? (Arnott and Bernstein, 2002) that investors should assume in order to benefit from fair proportionality profitability/risk. In this context, business and analysts have gone from medium-term analyses of financial market developments to the development of medium- and long-term strategies that have the capacity to mitigate the impact of unpredictable, shock moments.

4.8 Cyclical evolution

From the experience of the last decades, it can be concluded that the feature of cyclicality over time of the evolution of the financial market can be estimated the emergence of new moments of imbalance, but the precise prediction of the moment is almost impossible, given the multitude of external factors that interferes with the whole economic-financial mechanism and which, at the same time, corroborate the phenomenon of financial integration at regional and global level. The reality

shows us that, despite advanced econometric strategies and models, the evolution of financial markets never stops to surprise.

However, the financial researchers mostly conclude that financial markets, in correlation with the economic environment, are subject to a cyclical development, which can be empirically proven and observed to have an estimated period of 25-30 years. This feature of stock markets is particularly important in long-term financial analyses and underlines once again that expectations are picking up stock yields and fair forecasts can only be achieved in the context of a time frame of the order of decades. Even if short-term expectations of development may be foreseeable, they cannot conclude a sustainable development, nor can they guarantee a solid return, but possibly a speculative profit subject to a high degree of risk.

5. Conclusions

This paper combines characteristics of stock markets that define in the literature the conditions under which complex financial mechanisms work. The peculiarities of financial markets are a topic of interest in the scientific environment. I can conclude that the fundamental features of stock markets have been identified by classical literature, but recent research complements the conceptual elements with us, diversifying theoretical principles with progress and adaptation to economic realities.

From a theoretical-conceptual point of view, the study concluded that the characteristics of financial markets cannot be analysed unilaterally. The complexity of stock market mechanisms integrates the functionalities and characteristics that define them. As a conclusion of the theoretical concepts that has been studied, I issue the concept of "suspension spring" as a defining characteristic of stock markets evolution. With this term, I define the feature by which the behaviour of financial markets expresses the tendency to return to the initial state in the event of shocks and at the same time to resume the cyclical trend. By the term "suspension spring", it is included in the characterization of the market the heteroscedasticity of which it manifests, by analogy with the random flexibility of a spring. Also, the scientific literature agrees that the stock markets react suddenly, and often exaggeratedly, to external factors. This property can be compared to the way a suspension spring is elastically compressing or expanding when it suffers a physical impulse.

In practical terms, the study concludes that the ongoing concern of academic literature for updating and refining the complex characteristics of stock markets is justified. Also, the scientific environment recommends to the participants in these financial mechanisms and to state authorities on caution and maturity in decision-making processes. These recommendations are more important than ever, considering the fact that the financial markets - the more they benefit from the advantages of integration - the more vulnerable they are to economic crises. The example of the 2008 financial crisis shows how instability can be intrinsically caused by the very behaviour of participants in the financial market. In retrospect, it is noted that the balance on which Arnott and Bernstein drew attention in 2002 was well known to business, investors and analysts; academic research pointing out that over-speculative behaviour and irrational risk-taking can trigger imbalances that, through the snowball phenomenon, bring financial mechanisms into collapse.

At the same time, the health crisis in 2020 has significantly impacted stock index values, and the medium and long-term consequences of this phenomenon remain unknown for the time being.

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Financial Snapshot Regarding the Naval and Land Transport in Constanta County

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Abstract

This paper aims to examine some challenges related to the economic aspects of Naval and Land Transport companies in Constanta County. Specifically, it focuses on assessing the factors that determine the survival of naval and land transport companies.

Based on the empirical analysis performed, we used as a parametric method, the correlation method. With the help of the multiple correlation coefficient, we measured the intensity of the link the analyzed variables.

The paper shows that financial sustainability is related to the ability of companies to obtain considerable profits to facilitate the continuation of long-term business.

Key words: naval and land transport, turnover, gross profit, multiple correlation coefficient
J.E.L. classification: C10, M21, O10, P52, R40

1. Introduction

The main effect of the globalization phenomenon is the correlation between economic growth and the increase in the transport of goods and people.

The development of transport closely followed the world economic development, which required a continuous increase in the volume of goods transported.

International competition and geographic market expansion are forcing producers and exporters to focus on integrated production technologies and transport logistics in order to reduce costs and, at the same time, provide quality services.

The geographical area of Dobrogea benefits from seaports (Constanta, Mangalia, Midia, Sulina) and river ports (Tulcea, Brăila, Galati) as well as the connection with Central Europe through the Danube-Black Sea-Main Rhine Canal but also the seaport for the Asian basin, leading to an increase in the flow of goods worldwide. Our focus is set on the maritime transports of Constanta County, since this is a strategic sector of both the local region and of Europe due to the location possibilities and the harbors' infrastructure and facilities.

2. Literature review

Land transport is considered the most common mode of transport for goods and people (Rodrigue, 2020). Land transport covers all land transport systems that ensure the movement of people, goods and services. The importance of these elements depends on the level of performance they offer, as for example their transport capacity and traffic intensity.

The land transport system plays a vital role in connecting communities in one territory and connecting these communities with other regions.

Land transport infrastructure provides essential services for the functioning of a modern society. Road and railway structures are used every day by more and more people. (Patrman, 2019, p.1).

Sea transport is one of the most efficient modes of transport from an economic and ecological point of view (Hoen et al., 2014).

Maritime transport has gained importance for the transport of goods with the introduction of transport containers. This mode of transport is cost-effective and efficient (Gonzalez-Torre, 2013).

3. Research methodology

We used financial data collected from the annual financial statements of the companies with transport activity during a time horizon of 5 years, respectively 2014-2018. The considered study region is represented by Constanta County.

A series of terms and notions must be explained in order to understand the economic perspective of this study, respectively the way in which the final results were obtained.

The main factors are represented by the companies that carry out naval and land transport operations, selected according to the activities encoding system established by the National Office of the Trade Register-Classification of activities in the national economy - CAEN Rev.2.

The population of our study consists of a large number of financial statements reported by companies acting in the naval and land transports sector. The reporting companies have private or mixed private-public ownership, the common characteristic being the fact that they all reported profit during 2014-2018. The current study does not strive to assess performance and profitability by investigating the specificities of public management in the region (Munteanu, 2018, p.1247) in comparison to private entities. The focus is set on the predilection for profitable activities and on the most relevant financial indicators reported by companies, like salaries, turnover and number of employees, which reveal interesting incentives for public interest and involvement.

For land transport we chose the companies according to the following main activities (CAEN): CAEN 4920 - Class "Freight transport by rail"; CAEN 4931- Class "Urban, suburban and metropolitan passenger transport"; CAEN 4932- Class "Taxis transport"; CAEN 4939- Class "Other land passenger transport"; CAEN 4941- Class "Freight transport by road"; CAEN 4942- Class "Moving services".

For naval transport we chose the companies according to the following main activities (CAEN): CAEN 5010 - Class "Maritime and coastal passenger transport"; CAEN 5020 - Class "Maritime and coastal freight transport"; CAEN 5030 - Class "Passenger transport by inland waterways"; CAEN 5040 - Class "Inland waterway freight transport".

In order to measure at the level of the whole community the intensity of the statistical type connections between two or more variables (indicators) that follow a normal or asymptotic normal distribution law, both parametric and non-parametric methods are used. Among the parametric methods, the most used in practice is the correlation method. The simple linear correlation coefficient is an indicator that measures only the intensity of the linear type connection between two variables x and y. It is calculated as an arithmetic mean of the product of the normed normal deviations of the 2 variables. The coefficient takes values between -1 and +1, the coefficient sign indicating the direction of the connection (plus for a direct connection and minus for a reverse connection). The closer the value of the Pearson correlation coefficient is to more than 1 (in absolute value), the higher is the "intensity" of the linear relationship between the 2 variables. (Aivaz, 2007a; Aivaz, 2007b)

The average values of the statistical indicators were processed with the SPSS statistical software (Field, 2009). The value of the indicators is expressed in RON. Thus, using the system of average indicators of the time series, we performed a quantitative research of the activities. (Aivaz, 2018, p.83).

4. Findings

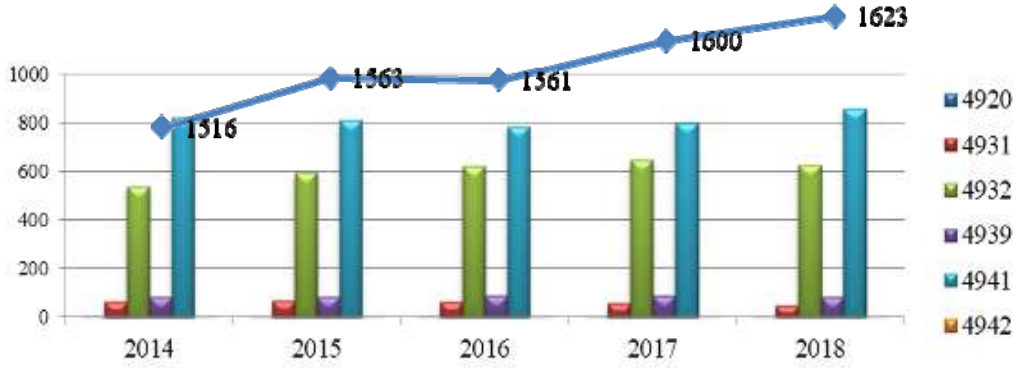
To begin with, we analyzed the number and structure of the companies from the selected population on the two types of transport analyzed: naval transport and land transport. I return with the specification that these are companies with private capital, that have made annual financial reports and that have a turnover higher than zero. The numeric synthesis of the number of companies analyzed by activity encoding during the targeted period is presented in Table no.1, with a visual representation in Figure no1.

Table no.1. The situation of the companies with land and naval transport activities in the period 2014-2018 at the level of Constanta County

	CAEN	2014	2015	2016	2017	2018
Land transport activities	4920	2	2	2	2	2
	4931	66	68	62	57	48
	4932	539	595	620	648	628
	4939	83	85	89	88	83
	4941	825	811	786	803	860
	4942	1	2	2	2	2
Subtotal		1516	1563	1561	1600	1623
Naval transport activities	5010	8	12	6	6	8
	5020	11	10	10	9	11
	5030	2	1	0	0	1
	5040	23	25	26	24	22
Subtotal		44	48	42	39	42
Total analyzed companies		1560	1611	1603	1639	1665

Source: Authors' study based on the INSE indicators

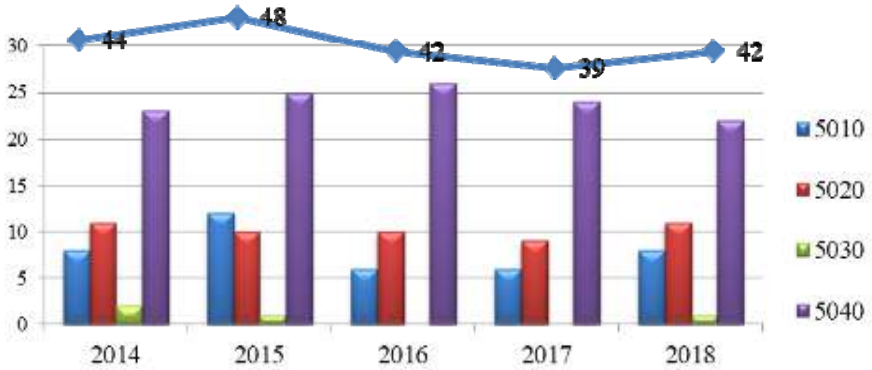
Figure no.1. The situation of the companies with land transport activities in the period 2014-2018 at the level of Constanta County



Source: The data in the table no. 1.

The dynamics of the numbers of transport activities shows interesting results. It sems that in the targeted region, most companies with land transport activities are registered with CAEN 4941- class "Freight transport by road" and with CAEN 4932- class "Taxis transport". The dynamics was between 1.4% and 3.1%.

Figure no.2. The situation of the companies with naval transport activities in the period 2014-2018 at the level of Constanta County



Source: The data in the table no. 1.

Most companies with shipping activities are registered with CAEN 5040 - Class "Inland waterway freight transport" and from CAEN 5020 - Class "Maritime and coastal freight transport".

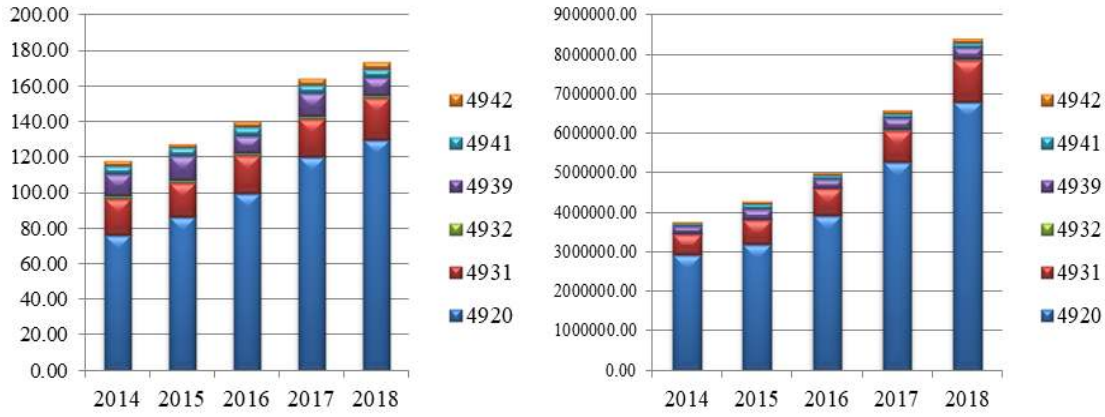
The dynamics was between 1.4% and 3.1%. It is important to follow the average number of employees and the salary expenses (average value) reported by these companies. They depend directly on the activity performed within the companies.

Table no. 2. The situation of the average number of employees and of the salary expenses (average value) for the land and naval transport activity in the period 2014-2018 at the level of Constanta county

CAEN	2014		2015		2016		2017		2018	
	1	2	1	2	1	2	1	2	1	2
4920	76.50	2941327	86.50	3208509	99.50	3924761	120.00	5282848	129.50	6797141
4931	19.92	509650	19.22	600937	21.34	680267	21.72	795764	23.90	1058585
4932	1.78	10758	1.48	21278	1.43	12875	1.39	17859	1.41	23215
4939	12.22	187606	13.51	269236	9.96	243377	12.77	296989	10.51	300003
4941	4.40	65149	4.77	119589	4.62	94963	4.63	115602	4.49	122062
4942	3.00	57158	2.00	77196	3.00	57141	4.00	93858	4.00	109670
5010	1.63	12385	4.00	187356	4.17	53266	2.33	35026	2.63	74066
5020	10.09	692932	12.30	826424	11.80	805259	11.33	857754	9.18	800700
5030	2.00	34373	3.00	124336	0.00	0	0.00	0	1.00	5357
5040	9.74	258832	9.52	344109	10.85	344689	12.54	434749	12.64	482536

Column no. 1. Average number of employees
Column no. 2. Salary expenses (average value)
Source: Authors' study based on the INSE indicators

Figure no. 3. The situation of the average number of employees and of the salary expenses (average value) for the land transport activity in the period 2014-2018 at the level of Constanta County

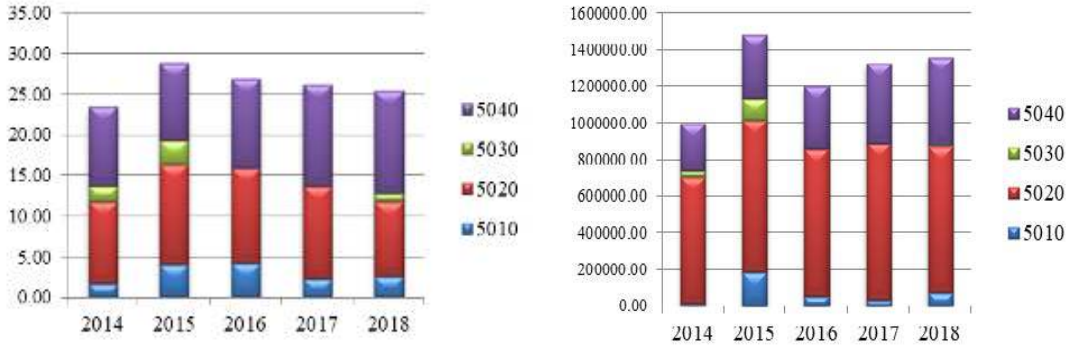


Source: The data in the table no. 2.

It is interesting to note in Figure 3 that despite the fact that only two companies registered with CAEN 4920 - Freight transport by rail, these two concentrate the largest numbers of employees in the region. The situation may be explained by the fact that the analysed profitable companies in question have majority public stakeholders, situation that has been studied as specific to developing countries in Europe (Munteanu and Condrea, 2018, p.525).

The activities related to the CAEN 5020- Class "Maritime and coastal freight transport" and related to the CAEN 5040- Class "Inland waterway freight transport" concentrate the largest number of employees with the related salary expenses.

Figure no. 4. The situation of the average number of employees and of the salary expenses (average value) for the naval transport activity in the period 2014-2018 at the level of Constanta County



Source: The data in the table no. 2.

From the indicators reported in the financial statements of companies with land and sea transport activity, I focused on turnover. It is an activity indicator that gives a global picture of the results and performances of an activity and represents the total amount of income from commercial operations performed by a company over a period of time.

For the reflection of performance assessment, I chose profit, which is the *raison d'être* of each entity and has the strength to synthesize the quantitative and qualitative aspects of economic processes.

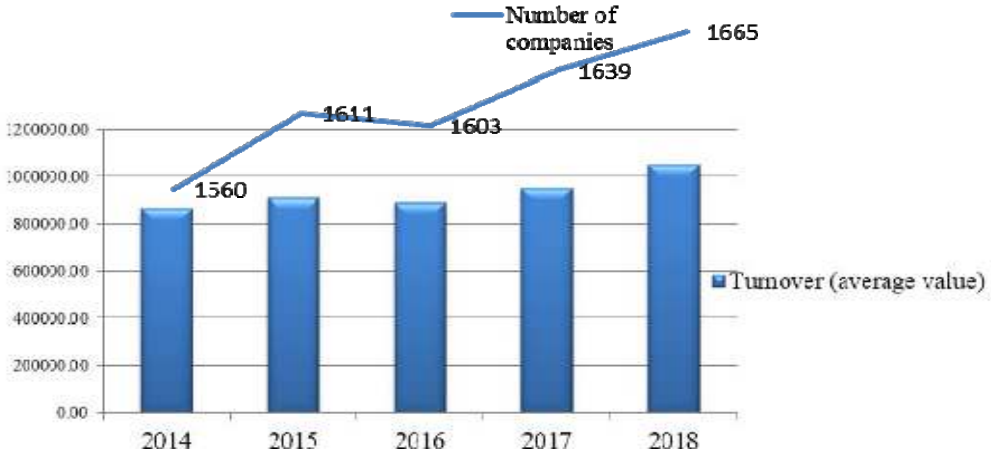
Regarding the registered turnover and the gross profit generated in the analyzed time horizon, the situation is presented according to the data in table no. 3.

Table no. 3. The situation of the turnover (average value) and of the gross profit (average value) for the land and naval transport activity in the period 2014-2018 at the level of Constanta County

	2014	**2015**	**2016**	**2017**	**2018**
Turnover (average value)	867950.73	912583.05	893886.91	947344.67	1048695.96
(year n/ year n-1)*100= %		105.14	97.95	105.98	110.70
Gross profit (average value)	53846.87	79823.26	93195.62	101067.10	104333.51
(year n/ year n-1)*100= %		148.24	116.75	108.45	103.23
Number of companies	1560	1611	1603	1639	1665
(year n/ year n-1)*100= %		103.26	99.50	102.24	101.58

Source: Authors' study based on the INSE indicators

Figure no. 5. The situation of the turnover (average value) for the land and naval transport activity in the period 2014-2018 at the level of Constanta County

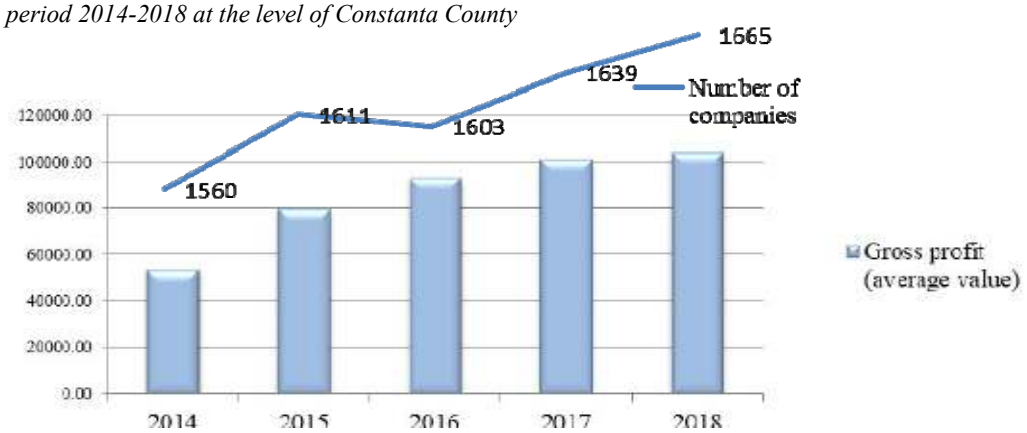


Source: The data in the table no. 3.

We find that except for 2016 when the number of companies decreased by 1.5% compared to 2015 and turnover (average value) decreased by 2%, in the rest of the analyzed period turnover increased by 5% in 2015 and 2016, and even 10% in 2018.

For the gross profit, we find that the analyzed companies with activity in the field of land and naval transports registered on average annual increases, except for 2016.

Figure no. 6. The situation of gross profit (average value) for the land and naval transport activity in the period 2014-2018 at the level of Constanta County



Source: The data in the table no. 3.

I chose to establish the links between statistical variables using the correlation technique, which will show how strong the link is, the dependence between variables.

In this paper, the variables introduced in the study are: y = Gross profit (average value), x1 = Turnover (average value), x2 = operating costs (average value) and x3 = Average number of employees.

Correlation coefficients whose estimate is presented in Table no. 4, are partial correlations.

Coefficients that measure the influence of Turnover (average value) (x1) on Gross profit (average value) (y), as well as the influence of operating costs (average value) (x2) on Gross profit (y), and to a lesser extent the influence of Average number of employees (x3) on Gross profit (y)).

The positive value of the coefficients and their size indicate a strong relationship, directly proportional to the relevant connections.

Table no. 4 Calculation of Pearson correlation coefficients

		Turnover (average value)	**Operating costs(average value)**	**Gross profit (average value)**	**Average number of employees**
Gross profit (average value) year 2014	Pearson Correlation	.702**	.663**	1	.221**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	1560	1560	1560	1560
Gross profit (average value) year 2015	Pearson Correlation	.754**	.712**	1	.208**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	1611	1611	1611	1611
Gross profit (average value) year 2016	Pearson Correlation	.693**	.646**	1	.207**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	1603	1603	1603	1603
Gross profit (average value) year 2017	Pearson Correlation	.752**	.684**	1	.353**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	1639	1639	1639	1639
Gross profit (average value) year 2018	Pearson Correlation	.797**	.757**	1	.569**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	1665	1665	1665	1665

Source: Table processed in the SPSS programme

5. Conclusions

The analysis of the indicators of the companies involved in the market economy, brings before the analyst their common problems but makes it impossible to formulate general conclusions.

This paper finds that good prospects are presented that allow the development of companies engaged in shipping and land transport.

The obtained results allow us to establish business profiles, to estimate the social and economic effects produced by a certain activity, in a certain geographical area.

We emphasize, however, that the simple highlighting of the multiple relationships that are created between the mentioned indicators does not completely elucidate the degree to which they respond to the rigors of reflecting such a complex economic category.

The transport economy has a dynamic character, the relations between the economic-financial indicators must be presented and analyzed in the dynamics of the phenomena they mirror, because in this way conclusive results can be reached.

Transport is a strategic economic sector with incremental synergistic effects for capital investing and business dynamics. Efficient transportation resides in a good flow of commercial operations, local development through diversity of trade, tax efficiency and touristic potential.

Romania's maritime potential is strategic not only for national grounds, but also for European interests. Romanian harbours are gateways of trade to Europe, so attention and care to this sector are of paramount importance. Our brief investigation creates a visual framework of Romania's maritime transport infrastructure and economic dynamics, showing inextricable links with the land transportation businesses. The land and maritime transport are strongly related when it comes to development. It is less probable to develop one without the need to invest in the other.

Also, public interest in the sector has multiple economic inflections that stimulates employment, creates infrastructure and sets targets for performance. The development of studies in similar financial directions and finding ways to contribute to literature with visual economic frameworks for the development of local transport stimulates comparison and leads to significant benefits not only to local businesses, but also for wider regional trade with a global dynamic.

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Dynamics and Correlation of the Main Indicators of Professional Scientific and Technical Activities in Constanta County

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Abstract

The paper addresses an exciting topic, namely the specialized activities of professionals, with typologies of inhomogeneous activities. These activities are characterized by a high degree of training and services offers oriented to a certain professional field.

The results of the analysis allow us to identify the number of active companies in Constanta County that developed scientific and technical activities and to note the degree of profitability of the categories of professional activities.

To measure the intensity of the connection between the indicators we used the correlation method. The multiple correlation coefficient measures the intensity of the connection between the dependent variable and two or more independent variables.

Key words: professional activities, turnover, gross profit, correlation method
J.E.L. classification: C10, M21, O10, P52

1. Introduction

In Romania, professional activities are carried out on a professional basis and their exercise is regulated and conditioned by a certificate that reflects the level of professional education.

Professional activities carried out by members of a professional organization must have as an assumed fundamental objective the promotion and support of a high level in a professional field.

According to the Classification of activities in the national economy - CAEN Rev.2. set by the National Office of the Trade Register, "section M" includes specialized professional, scientific and technical activities. These activities are characterized by a high degree of training and their services provide specialized knowledge and skills. It is a statistical classification of economic activities, which is currently adopted at the level of the European Union.

"Section M" comprises seven groups of inhomogeneous activities: Legal and accounting activities; Activities of head offices; Management consultancy activities; Architectural and engineering activities, technical testing and analysis; Scientific research and development, including three types of research and development: 1) basic research; 2) applied research; 3) experimental development; Advertising and market research; Other professional, scientific and technical activities; Veterinary activities. As we can see, a large number of activities are included that offer various services and are not related to each other. I was attracted by this research approach, because I also develop a business included in these typologies of activities.

2. Theoretical background

In order to contribute to the successes of companies carrying out professional activities, employees must have fundamental skills and knowledge in the respective field. Only in this way will they be able to provide users with specialized information and skills.

In order to obtain effective results, Sandwich (1993) emphasized the need for managers to acquire high level conceptual skills, creative skills, leadership skills, administrative skills and technical skills that they can sustain in a timely manner in their work. From the perspective of a manager, specific management development practices are needed to improve performance in

specific activities (Longenecker, Fink, 2001; Popovici *et al*., 2020)

In these companies, as a rule, the managers own the business, and try to obtain the highest possible results with as few resources as possible. Because performance standards are constantly rising, companies should create opportunities to improve the skills development of both the master and the employees (Doggett *et al*, 2011, p.119). The enhancement of professional abilities and the impulse given by specialized activities to financial progress bring a positive perception on local business potential and to quality of life (Popovici *et al*., 2020)

3. Research methodology

We have compiled a database with indicators from the annual reports of companies with professional scientific and technical activities. The analyzed period was the time horizon 2014-2018, the study area being Constanta county.

We selected a number of 18 activities according to the CAEN established by the National Office of the Trade Register - Classification of activities in the national economy - CAEN Rev.2.

We used the SPSS statistical software to process statistical data and we obtained the average values of the indicators expressed in RON (Field, 2009). We conducted a quantitative research using the average indicators of the chronological series (Aivaz, 2018, p.89).

In order to capture the dynamics of the analyzed indicators, we resorted to the graphic method that allows highlighting by visual appreciation of their values.

For correlation we used parametric methods that allow the precise determination of both the connection between several variables and its intensity. To measure the intensity of the connection between the dependent variable y and the independent variables xi we used the correlation method. Depending on the nature of the link between the dependent variable y and the independent variables xi - the direct or inverse link - the correlation can be positive, in the case of the direct link, or negative, in the case of the inverse link. The multiple correlation coefficient measures the intensity of the connection between the dependent variable y and two or more independent variables xi. It must be taken into account that each independent variable has only a fraction of the total influence on the dependent variable (Aivaz, 2007a; Aivaz, 2007b).

4. Findings

The dynamics of the number of companies with scientific and technical professional activities in the analyzed horizon 2014-2018 is presented according to the data in Table no.1 and the graphical representation in Figure no.1.

Table no.1. Dynamics of the number of companies with scientific and technical professional activities, Average number of employees and Salary expenses (average value) in the time horizon 2014-2018

	2014	**2015**	**2016**	**2017**	**2018**	**2015/ 2014%**	**2016/ 2015 %**	**2017/ 2016 %**	**2018/ 2017 %**
Number of companies	1399	1405	1526	1597	1789	100.43	108.61	104.65	112.02
Average number of employees	3.60	3.44	3.28	3.20	3.44	95.56	95.35	97.56	107.50
Salary expenses (average value)	97486	101862	103526	118235	132414	104.49	101.63	114.21	111.99

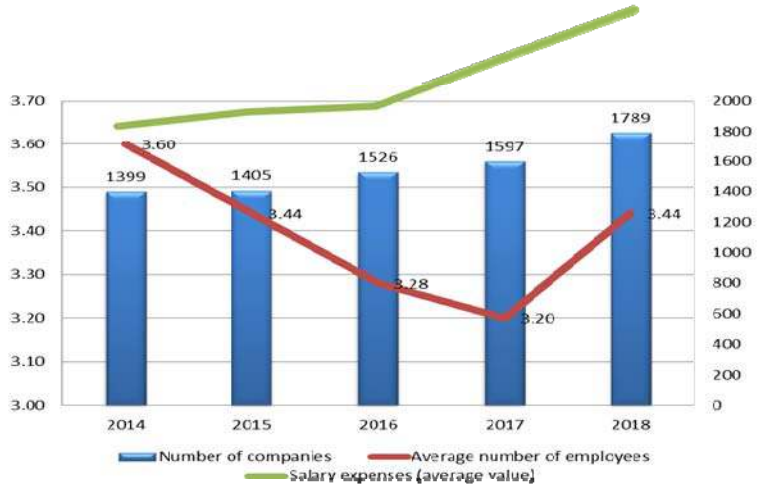
Source: Dates processed in the SPSS programme, based on the INSE indicators

We find a certain linearity in the values of the average number of employees, even if the number of companies shows a slight fluctuation. Only in 2018, there is an increase compared to 2017, by 7.50%, but to reach the level of previous years.

It should be noted that in companies with professional activities have a small number of employees, but the registered turnover is considerable, as we note in tables no.2.

Except for 2018, in the rest of the period there were reductions in the number of employees, but salary expenses increased every year.

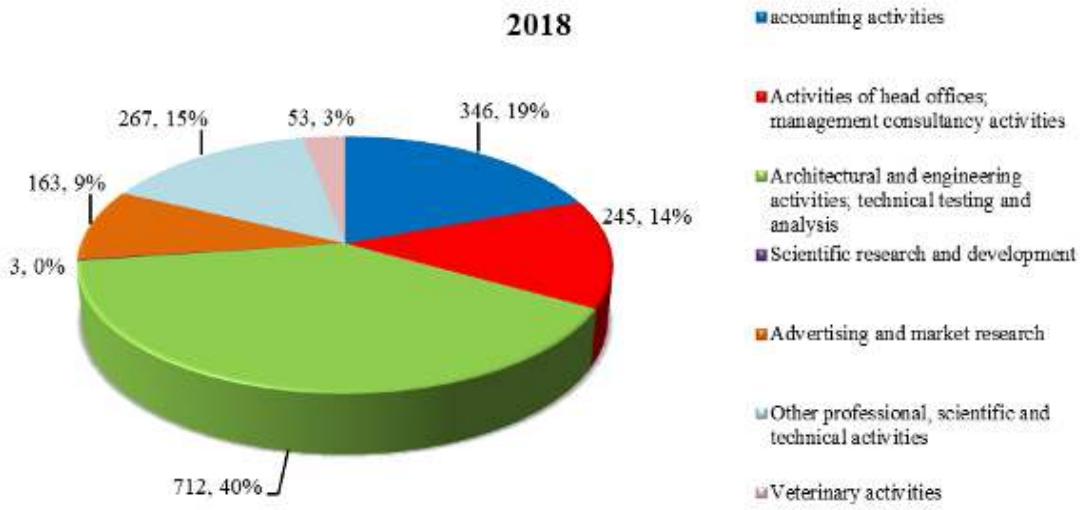
Figure no.1. Graphic representation of the number of companies with scientific and technical professional activities, Average number of employees and Salary expenses (average value) in the time horizon 2014-2018



Source: The data in the table no. 1.

We graphically represented the structure of companies by groups of professional activities only for 2018, because we found similar situations in the previous period.

Figure no.2. The structure of the number of companies with scientific and technical professional activities, in 2018



.*Source*: Authors' study based on the INSE indicators

We find that most companies in the group of activities 71 "Architectural and engineering activities; technical testing and analysis" include consulting services for architectural activities, plans and projects for buildings, urban plans and landscaping; engineering activities; testing and

technical analysis activities. With a percentage of 19% we have companies with accounting, audit and bookkeeping services.

At the opposite pole we have only three companies with research and development in social and humanities and research and development in other natural sciences and engineering.

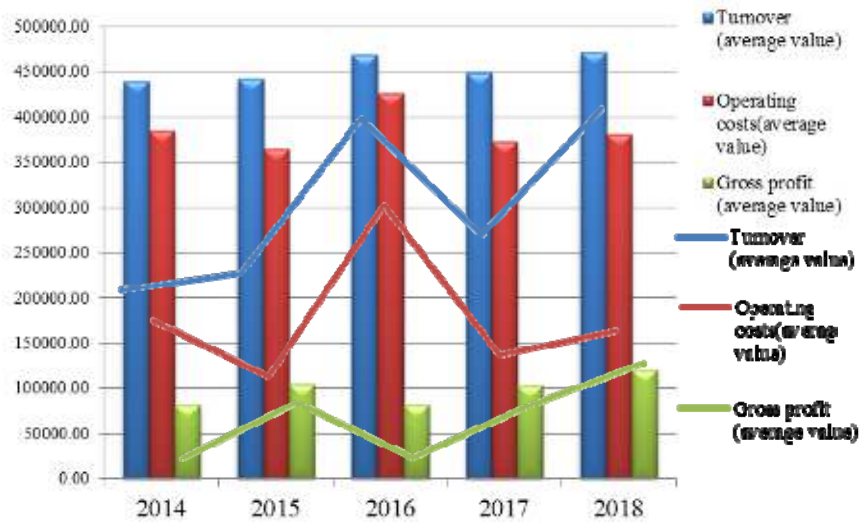
The data in Table no. 2 provides the dynamics of the indicators "Turnover", "Operating expenses" and "Gross profit", average level, in the period 2014-2018 for the analyzed activities.

Table no.2. Dynamics of the indicators "Turnover", "Operating expenses" and "Gross profit", average level, in the period 2014-2018

	2014	2015	2016	2017	2018	2015/ 2014 %	2016/ 2015 %	2017/ 2016 %	2018/ 2017 %
Turnover (average value)	438977	441900	469463	448776	471235	100.67	106.24	95.59	105.00
Operating costs (average value)	384688	364835	425986	372600	381009	94.84	116.76	87.47	102.26
Gross profit (average value)	81258	104343	81786	103103	120969	128.41	78.38	126.06	117.33

Source: Dates processed in the SPSS programme, based on the INSE indicators

Figure no.3. Graphic representation of the indicators "Turnover", "Operating expenses" and "Gross profit", average level, in the period 2014-2018



Source: The data in the table no. 2.

Except for 2016, when the operating expenses increased by 16.76% compared to 2015, which led to a decrease in gross profit (average value) by 21.62%, during the rest of the period the companies recorded values with slight increases in gross profit (average value). In 2018, the number of companies increased by 12% compared to 2017, but the gross profit (average value) increased by 17.33% compared to the same period.

The companies that register the highest values for the analyzed indicators are those that carry out testing and technical analysis activities. During 2018, 100 companies developed this kind of activities, with an average number of employees of 9.13 and registered a turnover (average value) of over 300,000 euros.

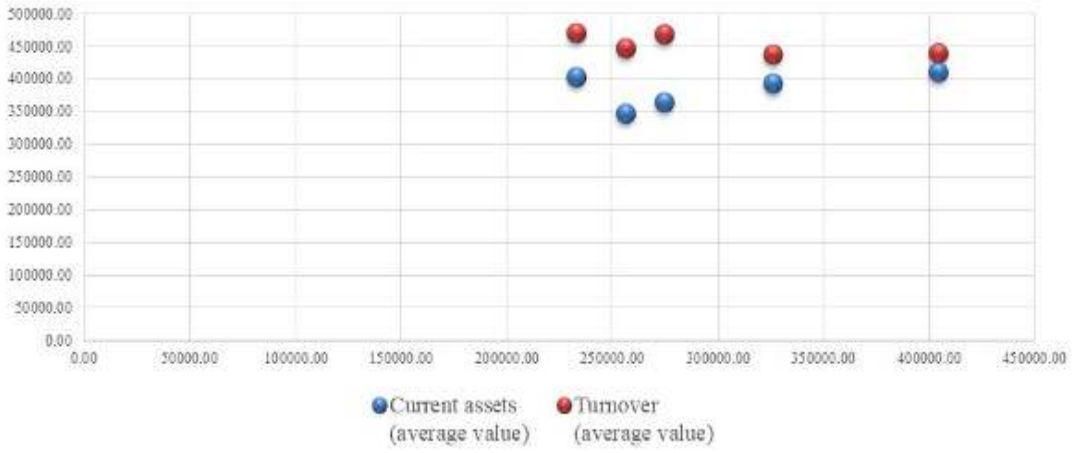
To establish the interdependence or connection between the selected variables in the analyzed statistical population we chose to use Pearson's correlation coefficient r (linear correlation coefficient). The variables selected in the analyzed statistical population are: y = Turnover (average value), x1 = Fixed assets (average value), x2 = Current assets (average value).

Table no. 3. Calculation of Pearson correlation coefficients

		Fixed assets (average value)	Current assets (average value)	Turnover (average value)
Turnover (average value) year 2014	Pearson Correlation	.327**	.598**	1
	Sig. (2-tailed)	0.000	0.000	
	N	1399	1399	1399
Turnover (average value) year 2015	Pearson Correlation	.306**	.805**	1
	Sig. (2-tailed)	0.000	0.000	
	N	1405	1405	1405
Turnover (average value) year 2016	Pearson Correlation	.262**	.586**	
	Sig. (2-tailed)	0.000	0.000	
	N	1526	1526	1526
Turnover (average value) year 2017	Pearson Correlation	.300**	.594**	1
	Sig. (2-tailed)	0.000	0.000	
	N	1597	1597	1597
Turnover (average value) year 2018	Pearson Correlation	.224**	.646**	1
	Sig. (2-tailed)	0.000	0.000	
	N	1789	1789	1789

Source: Table processed in the SPSS programme

Figure no.4. The link between the variables Current assets (average value) and Turnover (average value)



Source: The data in the table no. 3.

In the case of the analyzed statistical population, correlation coefficient has only positive values, which means that we have a direct correlation - the two correlated variables vary in the same direction (when one increases and the other increases, respectively when one decreases and the other decreases).

Correlation coefficient has higher values in the case of the variable x2 = Current assets (average value) which indicates a strong relationship between the two indicators.

This can be explained by the fact that current assets include stocks and cash resources, which directly influence turnover.

The largest dimension of the correlation coefficient ry / x2 = 0.805 is found in 2015 and indicates a strong influence between the two indicators.

We also selected the dependent variable and y = Gross profit (average value) and three factorial variables x1 = Turnover (average value), x2 = Operating costs (average value) and x3 = Average number of employees.

With respect to relevant connections, the positive value of the coefficients and their size for the technical activities indicate a strong relationship, directly proportional.

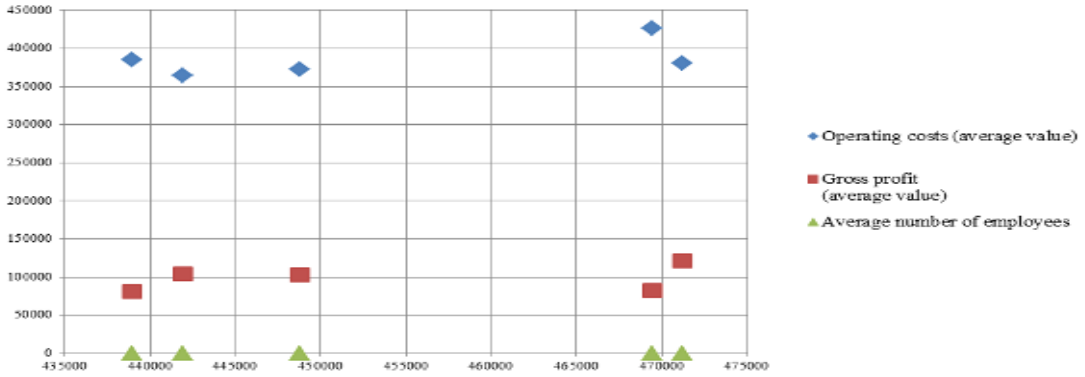
Table no. 4 Calculation of Pearson correlation coefficients

		Turnover (average value)	Operating costs (average value)	Gross profit (average value)	Average number of employees
Gross profit (average value) year 2014	Pearson Correlation	.606**	.413**	1	.259**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	1399	1399	1399	1399
Gross profit (average value) year 2015	Pearson Correlation	.727**	.585**	1	.434**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	1405	1405	1405	1405
Gross profit (average value) year 2016	Pearson Correlation	.763**	.724**	1	.452**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	1526	1526	1526	1526
Gross profit (average value) year 2017	Pearson Correlation	.570**	.450**	1	.276**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	1597	1597	1597	1597
Gross profit (average value) year 2018	Pearson Correlation	.766**	.648**	1	.474**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	1789	1789	1789	1789

Source: Table processed in the SPSS programme

The link between operating costs (average value), gross profit (average value) and number of employees (average value) presented in Figure 5 brings incentives on performance assessment in the investigated field. In order to achieve performance, managers must find the business opportunities that will concur to the achievement of sufficient revenues and fulfilment of operational objectives. Motivation for performance assessment underwent complex directions and various theorists' approaches (Munteanu, 2018), but the topics' importance needs constant research and professional monitoring.

Figure no.5. The link between the variables Operating costs (average value), Gross profit (average value) and Average number of employees



Source: The data in the table no. 4.

5. Conclusions

This study investigated the importance of professional activities in Constanta County for the period 2014-2018.

The findings of this paper present a convincing image on the importance of the typologies of professional activities. I sought to capture in this study a small part of the aspects resulting from the information reported by companies in the annual financial statements.

The data collected allow us to identify the number of active companies for Constanta County, and to note the degree of profitability of this section of activities.

Although these companies employ a small number of employees, the level of turnover and profit is high.

I noticed that for the targeted are, the most profitable professional activities include the activities from the group Architectural and engineering activities; technical testing and analysis, accounting activities, advertising and market research.

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An Overview of the Business Approach and Labor Costs in the Construction Industry. Case Study: Romania's Counties by the Sea

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Abstract

The context of construction reflects the complexity of technological advancements, industrial modelling and simulation, intertwined by the need for economic attention. The current paper captures the evolution of businesses and labor indicators in the construction industry of Romanian companies in the seaside region and determines a series of illustrated trends of the labor cost in the principal subsectors specific to construction engineering domain. By combining case study observation and quantitative analysis methods, we could express in suggestive figures the diverse, divergent and compelling business context in the construction industry of Romania's two counties by the sea, Constanta and Tulcea. The dichotomic issues found during our study provide insights into the complex competition, business approach and labor costs in the construction context. The motivation for research and need to disseminate managerial knowledge derives from the impetus to enhance productivity and support for the economic development strategies in Eastern Europe.

Key words: construction industry, labor costs, employment, business approach
J.E.L. classification: L74, M21, M52, O10, P52

1. Introduction

The construction industry plays an important role in the national economy (Abudayyah et.al., 2000, p.170), by bringing significant contribution to the gross domestic product or by creating infrastructure to support other businesses.

The research efforts in the construction industry have undertaken different directions of analysis over time, given the complexity of the domain. The state of knowledge and research reviews were concerned with engineering education and theory development (Hynes et.al., 2017, p.453), the design and business projects management (Ekbiyikh and Eaton, 2011, p.330), quality management programs and value systems that may be better applicable to the complexity of the construction industry (Sullivan, 2011, p.216). The financial and empirical economic approach on the construction industry in Central Eastern Europe supports the need of extensive research.

The current paper captures an overview of the complex, divergent and challenging context of the construction industry of the two counties from Romania located by the sea, Constanta and Tulcea. In the first part of the study we present a review of evocative literature, then the case study methodology is described followed by the considerations on the findings and the conclusions drawn.

2. Literature review

The economic approach on construction examined the practitioners' understanding of value and the contribution of the value theory to financial performance (Thomson et al., 2013), with active interest in building information modelling (BIM) (Aranda-Mena et.al, 2013, p.420) that may induce positive return on investment, cost management improvement and competitiveness improvement to the construction industry (Chan et al., 2019). Considering the inflections that the transition period following the fall of communism (Hlavacek et al., 2016), the role that good housing conditions

(Dekker et al., 2005, p.13) and reasonable costs had on urbanization (Ouředníček, 2016, p.545), researchers became concerned with the rehabilitation and development challenges of housing estates (Nedučin et al., 2019, p.1853) and profitability of companies (Aivaz, 2018a and 2018b) (Popovici and Moraru, 2017) in Central and Eastern Europe.

Various directions were investigated in the construction sector, but little has been said on the economic review of construction business in Eastern Europe. This paper provides insights into the complex competition, business approach and employment costs of companies acting in the construction sector of Romania's Black Sea region, that may be of valuable interest to researchers and to business practice.

3. Research methodology

This paper analyzes the case study of companies operating in the field of construction in the two counties by Romania's seaside, Constanta and Tulcea. By quantitative processing of statistical data and observation, we created imaging perspectives of the results. The graphical method allows comparative analyzes, perception of progression and trends of the analyzed indicators. The focus was set on the predilection for operational sectors in the construction industry, based on the analysis of a large number of specific businesses. The investigation was also conducted on the trends of labor indicators, by observing the evolution and concentration of employees and salary costs in the different construction activities.

According to Romanian law, construction companies can develop their activities by opting for an operational sector in the construction domain. Theorists researched the different divisions of the construction sector as "fragmentation of the industry" (Latham, 1994) with the purpose to find incentives to increase productivity and add value to the construction industry (Wang et.al., 2017). The current study was focused on investigating trends for labor and financial reported indicators by companies specialized in the main construction sectors in Romania. The main construction subsectors observed are:

- real estate development (Real estate Co);
- construction works for residential and non-residential buildings (Building Co);
- road and railway construction works (Road build.Co);
- construction works for utility projects (Utility projects Co);
- construction works for other engineering projects (Engineering projects Co);
- demolition and land preparation works (Demol.&land prep.Co);
- electrical and sanitary installation works and other construction installation works (Electric&sanitary works Co);
- finishing works in constructions (Finishing work Co);
- other special construction works (Other construction Co).

The analyzed population consists of all the firms acting in the construction industry in the counties of Constanta and Tulcea, that reported operational income and had turnovers greater than 0, during 2014-2018. The database included information provided by Romania's National Institute of Statistics (INSSE) and the Ministry of Finance (ANAF). The number of investigated firms resulted in a considering amount of data which allowed us to capture a graphical representation of the complex and divergent construction business contexts in Constanta and Tulcea.

4. Findings

The two analyzed counties are situated by the Black Sea and present great potential for business. The geographic position of the analyzed region present strategic importance through the fact that they are an eastern sea gate to European Region, they have direct access to the sea and to the Danube, the river that connects Germany with the Black Sea. The construction business opportunities in the region are also supported by the touristic attraction of the seaside and the increasing demand for holyday accommodation especially in the summer season.

The analyzed population consists of a significant number of companies included in the dataset as presented, on a yearly basis, in Table 1.

Table no. 1 Number of analyzed companies presented by county and period

County/Year	**2014**	**2015**	**2016**	**2017**	**2018**
Constanta	1414	1482	1531	1595	1727
Tulcea	275	284	297	306	311
Total	1689	1766	1828	1901	2038

Source: Authors' analysis based on the INSE indicators

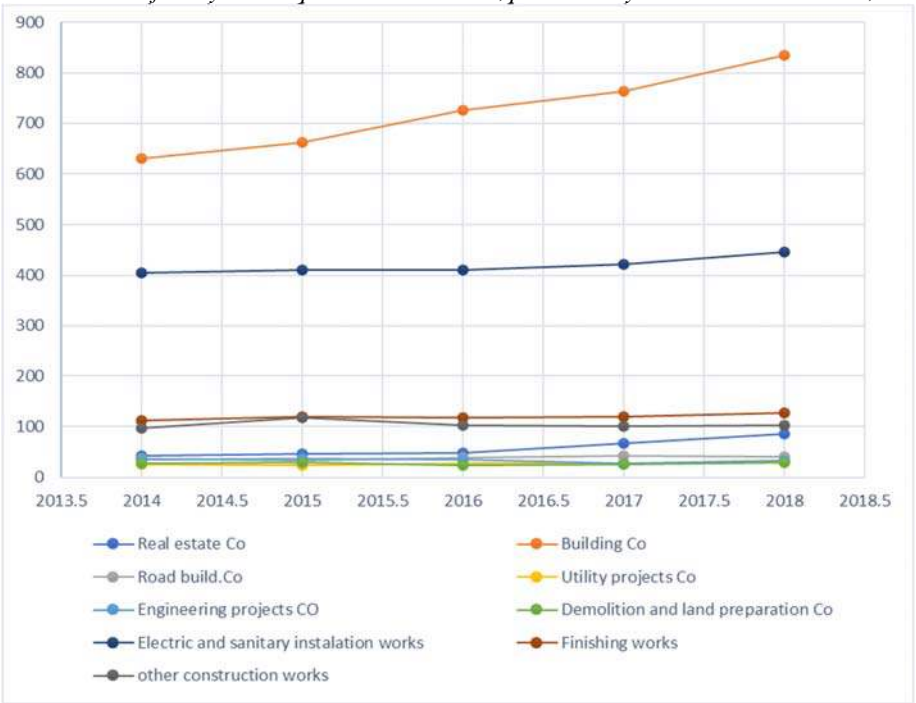
The numeric representation of the investigated data reveals a first interesting result of the territorial distribution of the construction firms in the two counties. Firstly, we can observe a growing trend of the total number of firms acting in Constanta and Tulcea, with positive turnover in the investigated period. From a comparative structural perspective, the number of firms is significantly larger in Constanta than in Tulcea throughout the whole reference period. The construction business is fairly more developed numerically in the southern county by the sea than in Tulcea.

If we consider that tourism may contribute to the development of the area, including by developing accommodation needs and household demand reflected in construction impetus, the situation is surprising at a general glance. Tulcea has the same geographical access to the sea, the same as Constanta, but in addition, it includes a dazzling touristic attraction listed as a World Heritage Site: the Danube Delta. The best-preserved delta on the continent, the Danube Delta, is an active scientific interest (Giosan et al., 2013) and represents a valuable natural site that may bring economic boost to the area. So, at a fair glance, touristic attractions should contribute to the county's economic development in consistent trends, including in the construction sector.

The real situation is, nevertheless, different and somehow dichotomous, since the construction numerical representation is far more poorly represented than in Constanta. Hence, the research concern needs to be developed in finding potential factors and solutions able to trigger economic development and an upgrade of quality of life in the region (Popovici et al., 2019, p.166).

The graphical representation of the companies displayed by county and by construction sector are presented in Figures 1 and 2.

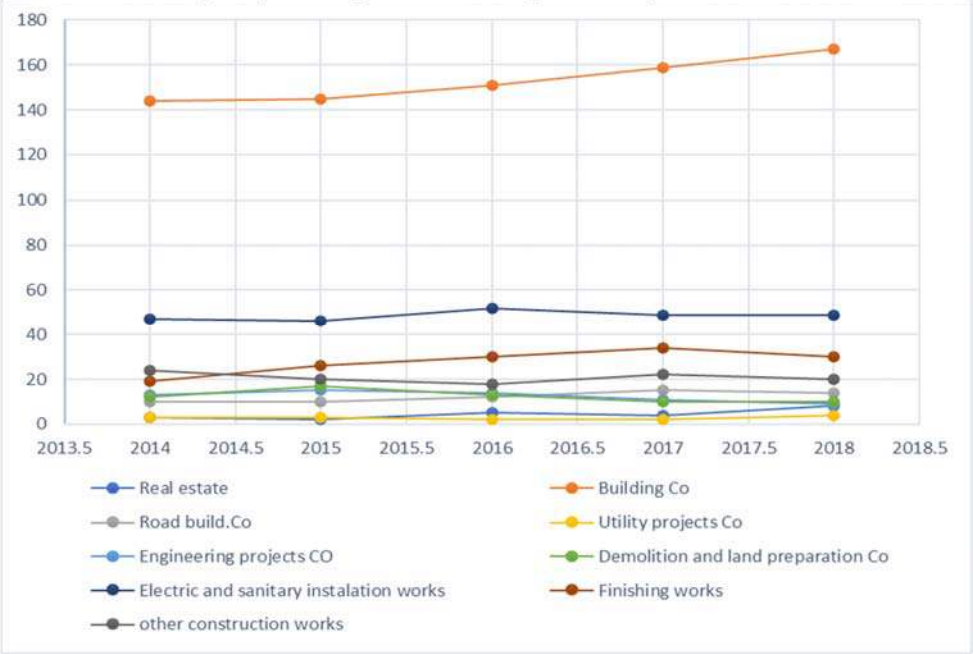
Figure no. 1. Number of analyzed companies in Constanta, presented by construction subsector, in Romania



Source: Author's processing based on the INSSE indicators

According to Figure 1, the distribution by sector of the acting construction companies is not homogenous. The largest number of construction companies in Constanta operate in the sector of construction works for residential and non-residential buildings (Buiding Co), followed by the sector of electrical and sanitary installation works and other construction installation works (Electric & sanitary works Co). The sector with the fewest number of registered companies is the construction works for utility projects sector (Utility projects Co).

Figure no. 2. Number of analyzed companies in Tulcea, presented by construction subsector, in Romania



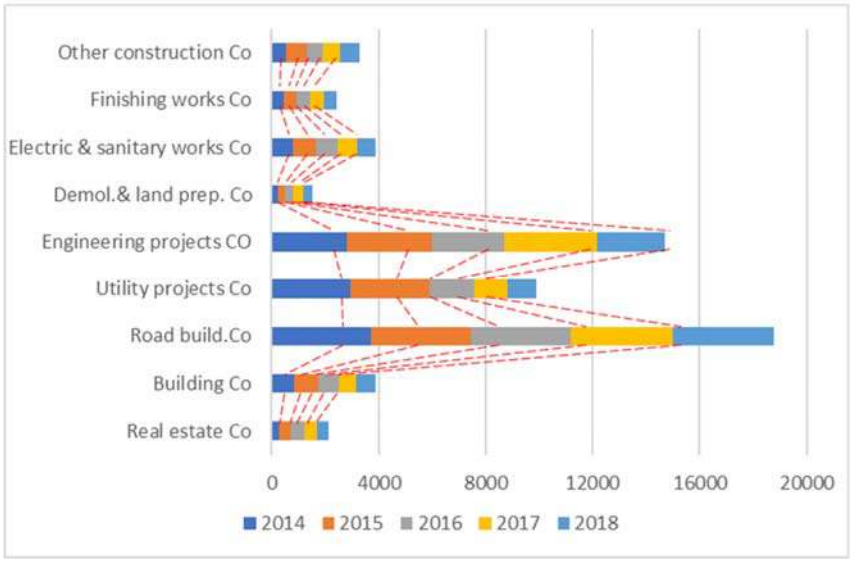
Source: Author's processing based on the INSSE indicators

In Tulcea, Figure 2 reveals that the largest number of firms also opted to develop services in the construction works for residential and non-residential buildings (Building Co). The situation is similar in Constanta. For the other sectors, the proportions are different. In Tulcea, the least interest for operational services in construction was for the real estate development sector (Real estate Co).

In order to get a bigger picture of the construction business context in the seaside area, and to understand potential practices that may improve performance of the industry (Dainty et al., 2007, p.501), we created a glance on the labor force distributed per each construction sector, as per Figure 3 and 4. Considerations on the labor market indicators in the south-eastern region of Romania presented concern for research (Aivaz, 2012, p.317), offering impulse for future need of assessment of trends and evolution.

The consistent investigated database supports our research with a robust statistical significance of the graphical findings. The labor indicators are represented with colored rows for the numeric evolution of employees in each analyzed sector and year, which are overlapped with red dotted lines for the evolution of salary expenses in each sector and period.

Figure no. 3. Number of employees and salary expenses evolution, per construction subsectors, in Constanta, Romania

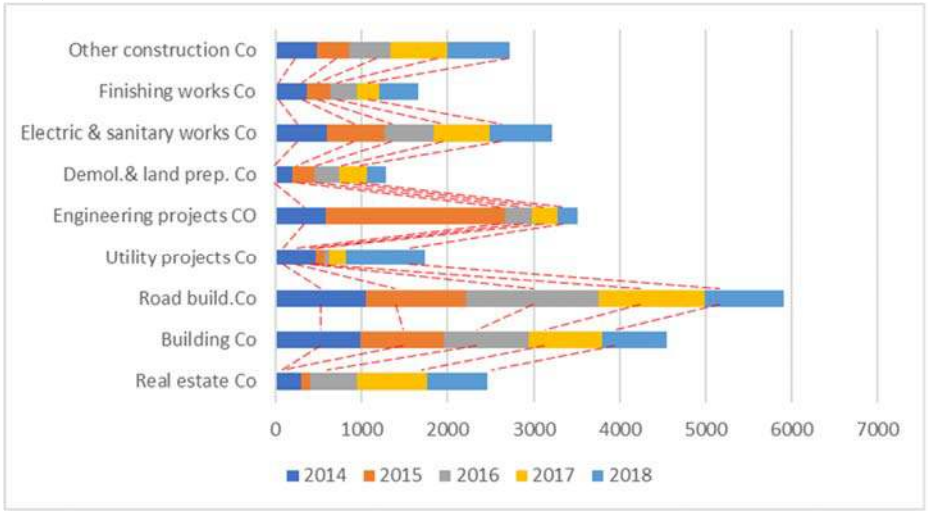


Source: Author's processing based on the INSSE indicators

Figure 3 reveals that in Constanta, the largest number of employees were hired by the companies acting in the road and railway construction works (Road build.Co), followed by construction works for other engineering projects (Engineering projects Co) and construction works for utility projects (Utility projects Co). Compared to the previous interpretation of Figure 1 with respect to the number of acting companies per construction sector, it seems that even though the number of firms is greater in the Building Co sector, the number of employees is ranked fourth in the graphical representation, and the salaries are disclosed to be amongst the poorest paid in the construction industry in Constanta.

The red lines which show the evolution of salary expenses, overlapped with the number of employees (Figure 3), reveal that, in Constanta, the better payed employees are the ones working in the construction works for other engineering projects (Engineering projects Co), while the smallest wages are in the demolition and land preparation works (Demol. & land prep.Co).

Figure no. 4. Number of employees and salary expenses evolution, per construction subsectors in Tulcea, Romania



Source: Author's processing based on the INSSE indicators

According to Figure 4, in Tulcea, the largest number of employees and the better payed salaries are the ones in the road and railway construction works (Road build.Co). Nevertheless, the construction works for residential and non-residential buildings (Building Co) is the second sector in the numerical importance of workers in Tulcea. Interpreted as whole, the numerical distribution of workers in the construction sectors in Tulcea seems to be more homogenous between the construction sectors than in Constanta.

The red lines which show the evolution of salary expenses, reveal a noticeable increase in the salaries payed for the workers in the construction works for other engineering projects (Engineering projects Co). It seems that in 2015 the number of workers and the wages in this sector increased significantly, attracting the largest number of workers in this subsector.

The same as in Constanta, the workers employed for demolition and land preparation works (Demol.&land prep.Co) are amongst the poorest payed during the analyzed period in Tulcea. Small numbers of workers were observed also in the construction works for utility projects (Utility projects Co), but an increase of salaries during 2018 in this subsector determined a noticeable increase of employment.

5. Conclusions

The current paper creates a valuable graphical perspective of the acting firms and labor costs in the construction subsectors in Romania's two counties by the sea, Constanta and Tulcea. The results point to divergent trends and evolutions of businesses and labor concerns in the two regions, that clearly depict the differences of business dimensions in the two regions. The numerical representation of firms differs significantly between the two counties with similar accessibility and demographical disposition. The touristic attractions point to favorable features in the northern county, in Tulcea, but the economic development of the region seems to have other particular factors with stronger influence, that need assessment and research concern.

The salaries in the construction industry are not high in the targeted region, but their evolution presents particularities for the two counties, with better numerical representation and wages levels in Constanta. The construction sectors are triggers for the development of national economy (Ghosh and Bhattacharjee, 2013), with propensity for tourism, industrial development and social prosperity.

Our study creates a visual snapshot of the construction context in Romania's counties by the sea. The used dataset includes a significant number of business indicators and thus captures a reliable assessment of the trends and divergencies in the evolution of the construction industry in the two areas. The results of our paper point to a further need of analysis and empirical studies in the construction field in the region, with a focus on constructive and sustainable development of business strategies and regional economic boost.

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Financial Reporting Quality and Operational Efficiency in the Coastal Region of Romania

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Abstract

Working with large databases and selecting indicators for economic analysis purposes raises several challenges and concerns. This paper provides insights on how the choice of indicators in an analysis of reported financial statements may significantly influence the interpretation of the results. The study investigates a sample that includes indicators reported by a large number of companies in the coastal region of Romania. The rigor and compliance of financial reporting ensure the quality and accuracy of information and are key features for assessing sustainable development. The quantitative analysis and case study observation allowed us to capture divergencies in the evolution of financial indicators caused by nonconformities in the financial statements. This study provides an empirical perspective that can raise awareness of potential biases in financial reporting evaluation. The accuracy of financial data directly influences the soundness of managerial decisions and has a major impact on the economic efficiency strategy of companies.

Key words: nonconformity, development, empiric filtering, financial reporting, evaluation
J.E.L. classification: G17, M20, M40, P50

1. Introduction

The efficient disclosure of an entity's data to the external interested parties depends on the degree of reporting compliance with regulatory requirements. Financial reporting quality is given by accuracy, conformity and control in reporting decisions (Way, 2019, p.18), whereas deviations, faults or errors in reporting define financial nonconformity.

The line between conformity and nonconformity is delicate and relies on knowledge, judgement of physical reality, group norms (Hornsey *et al*, 2003, p.321; Bellezza, 2014, p.35) or managerial perception (Zhao and Pattern, 2016, p.80).

The current paper is concerned with the empirical detection of nonconformities in a dataset that may distort the findings and dissimulate the results of an analysis. We do not strive to detect fraudulent report causes, but to propose new filtering perceptions and to substantiate the importance of empiric tests in selecting a sample of data. The findings are summarized into a three-stage filtering plan that is able to help the user to detect discordant information and eliminate it from the dataset, in order to support the veracity of results.

2. Literature review

Information is sensitive and shaped by a set of rules and managerial decisions. The data disclosure channels and the considerations that might affect a company's financial reporting choices have multiple deterministic perspectives and are quintessential for sustainability evaluation. Theorists approached reporting reasoning and accounting choice by focusing on tax considerations (Cloyd *et al*, 1996, p.23; Moraru and Popovici, 2015, p.146), regulations (Leuz and Wysocki, 2016, p.525), agency costs (Jensen and Meckling, 2007), external events affecting non-contracting parties (Fields *et al*, 2001, p.255), information asymmetries (Frankel and Li, 2004, p.229), ethics (Hope and Wang,

2018, p.70), the role of accountants and levels of assurance (Cuadrado-Ballesteros *et al*, 2017, p.1141).

Special consideration was directed also into researching the relationship of financial disclosure quality and investment efficiency (Chen *et al*, 2011, p.1255; Shroff *et al*, 2014, p.759), auditing and agency conflicts (Hope *et al*, 2012, p.500) and corporate performance (Martínez-Ferrero, 2014, p.49) with a distinct focus on errors and nonconformities (Garrett *et al*, 201, p.1088; Purda and Skillicorn, 2015, p.1193).

Concerns regarding financial reporting nonconformities have been long debated. Nonconformity has been analyzed from the perspective of quality management systems (Nikolay, 2016, p.228) or of fraud and the costly effects it incurs on small businesses (Thomas and Gibson, 2003). Fraud detection was reviewed with the well-known red-flags approach that recommends the use of a checklist of fraud indexes (Albrecht and Romney, 1986; Krambia-Kardis, 2002; Kranacher and Stern, 2004) or with several analytical procedures (Blocher, 1992; Kaminski and Wetzel, 2004).

The history of nonconformities viewed as errors, frauds or false financial reports shows various approaches for investigation. According to Benford's law, also known as the *law for anomalous numbers* or the *first-digit law*, data analysis should address the situations where digits deviate from expectations (Fewster, 2009), and observations should be deleted from a dataset if they don't have a normal distribution (Durtschi *et al*, 2004). The research of intrusion detection in financial reporting was developed in time and seems to converge to various machine learning techniques (Patel and Buddhadev, 2014, p.43) that rely on experience, examples and analogy in order to construct algorithmic mechanisms. Discovery sampling (Bierstaker *et al*, 2006, p.526; Elder *et al*, 2013, p.99) and comparison analysis was performed by classical or Bayesian approaches mostly to enhance effectiveness and productivity in audit missions (Erdogan and Uludag, 2014, p.669).

Filtering information in finance underwent extensive research development (Platen and Runggaldier, 2004, p.79), with a hinted need for empiric evaluation enhancement and user-based assessment of the dataset (Herlocker *et al*, 2004, p.14).

We explore a case study analysis that reflects the importance of the empiric approach to deviating or disproportionate sample features, which may help to identify the nonconformant cases that should be rejected in order to best model the analysis tasks.

3. Research methodology

The current paper oversees a sample of financial information from acting companies in the coastal area of Romania, in the counties of Constanta and Tulcea. The research was conducted as a case study analysis, based on quantitative processing (Aivaz, 2018, p.122) of a large financial database gathered from all the profitable firms in the targeted area during 2014-2018. The empirical interpretation of results used the graphical method to create an image of the financial trends and to perform comparative analyzes on business between the two regions. This paper is complementary to other studies developed in the same financially emergent region which have explored different dimensions of financial reporting interpretation (Aivaz 2012 and 2018a; Stanciu *et al*, 2016; Popovici *et al*, 2017, p.113).

The main financial indicators assessed were the medium rates of the reported turnover, operating costs, salary expenses, with values greater than zero, gathered from all the profitable companies in the coastal area of Romania as presented in Figure 1. A particular focus was set on the incentives for nonconformities based on the divergent trends and empirical comparison findings. The database sources were the information provided by ANAF and INSE via their public sites. The need for open-access government data is of paramount importance for businesses and researchers to create efficiency models and contribute to decision-making and added-value for improvement of quality of life (Rojas *et al*, 2018, p.553)

The chosen indicators are the main financial indexes for operational performance that are reported by companies in their financial statements, in compliance with Romania's financial reporting regulations. Medium rates were calculated for each of the indicators and the investigation on the incentives for accuracy and compliance was based on the observed trends and empiric interpretation.

Figure no. 1 Evolution of the number of profitable companies presented by county and period



Source: Authors' study based on the INSE indicators

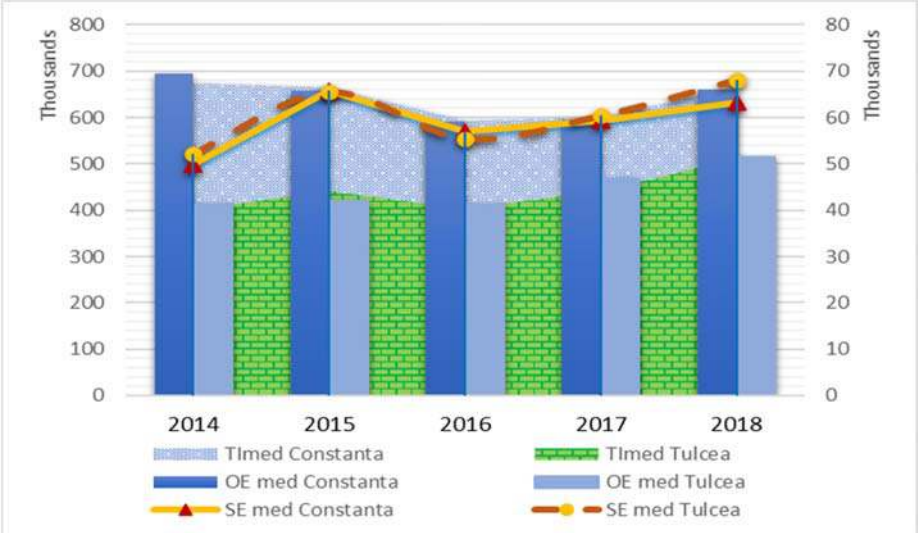
The evolution of the number of profitable companies in Constanta compared to Tulcea during 2014-2018 clearly point to a greater predilection for business and operational initiatives in Constanta. The number of profitable firms presents a growing trend in both counties, but the difference between the two counties is noticeable and indicates significant disparities for economic development.

4. Findings

In order to assess the general economic development situation in the two coastal counties, we followed the evolution of the main operational indicators reported in their financial statements by the companies included in the survey sample. We observed the trends and followed the patterns that led to nonconformity reporting incentives.

According to Figure 2, we compared the operating costs (OE), salary expenses (SE) and turnover (TI), calculated in medium values, between Constanta and Tulcea.

Figure no. 2. Comparative evolution of operational and salary medium expense, in Constanta and Tulcea



Source: Author's study based on the INSSE indicators

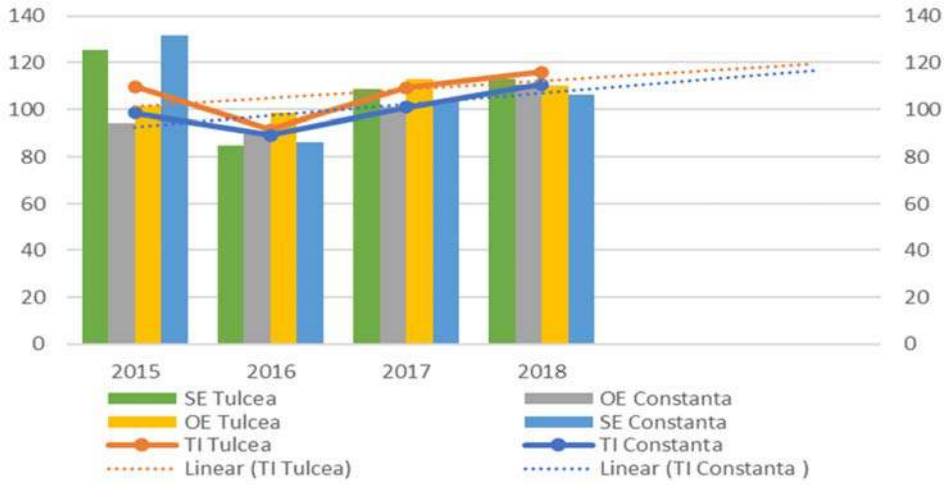
The evolution of medium operating expense and turnover during the analyzed period clearly indicate higher indicators in Constanta compared to Tulcea. The survey considered medium values of the analyzed indicators in order to address the differences determined by the numeric representation of companies in the two counties. The medium representation offers a more accurate image of the turnover and operational expenses in general terms of business considering the discrepancies of the numeric representation of profitable businesses in the investigated sample.

The trend of operational costs presents different trends in Constanta and Tulcea, with a downward course in Constanta until 2017 and a tendency for increase afterwards. In Tulcea the same indicator presents a more fluctuating progression, with an upward orientation in 2017. Also, it is interesting to notice that in Constanta the medium operational cost is higher than the medium turnover in Constatnta, considering the fact that the companies included in the survey sample reported profit during the whole targeted period (thus the financial results would be relevant for research, but these indicators are not made public by the public sites for collecting information).

The medium salary expense indicators calculated for the companies in Constanta is lower than the same indicator calculated for the companies acting in Tulcea during 2014 and 2018. The evolution of SE reveals a very interesting and discordant upward pattern in 2015 with a rapid decrease in 2016 in both counties. The abrupt evolution during 2015 of SE has no visible similar effect for OE during the same period.

In order to investigate the pattern of evolution of the chosen indicators, we calculated evolution indexes and projected a forecasted trend for the turnover tendency during the next three years, as presented in Figure 3.

Figure no. 3. Comparable evolution of financial operating indexes and forecast of turnover index in Constanta and Tulcea



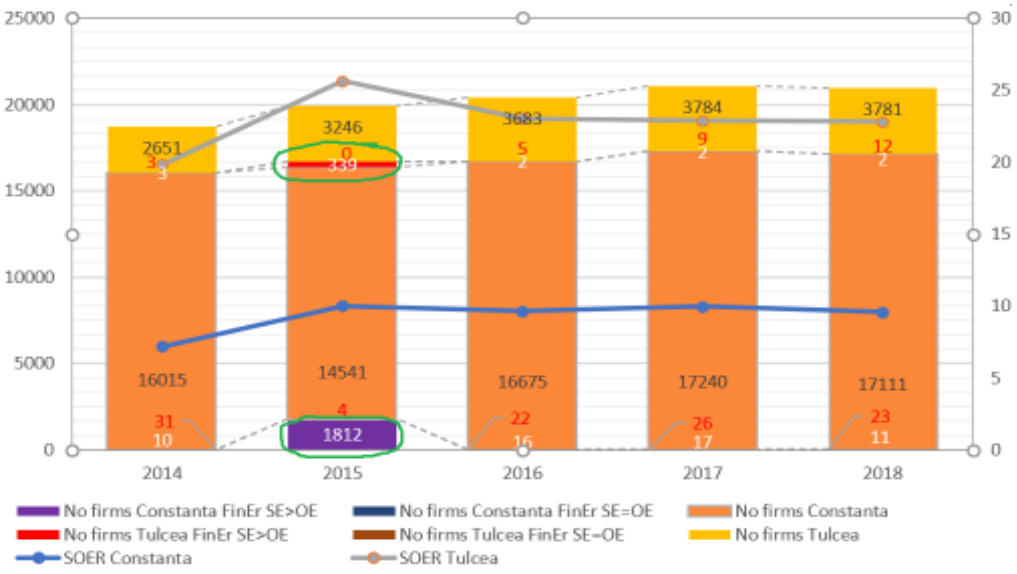
Source: Author's study based on the INSSE indicators

The divergent trends of SE observed during 2015 as shown in Figure 2, also affect the indexes calculated in Figure 3, where the SE index is higher than the OE index in both counties instead of the other way round. Also, it is interesting to notice an abrupt decrease in the TI index during 2016 calculated with reference to 2015, that also points to a divergent situation of financial indicators to be filtered and investigated for the 2015 financial statements included in the survey sample.

The forecasted evolution of turnover (Linear TI) in the next three years points to an increase in both regions, with a better upward trend in Constanta than in Tulcea.

In order to address the discordant trends found in 2015, we ran a series of empiric filters to the investigated database. Because all the selected firms included in the survey were profitable companies with positive financial indicators, we ran three conditional filters to the database: a) how many companies reported salary expense (SE) greater than operational costs (OE); b) how many companies reported salary expense (SE) equal to operational costs (OE); how many companies reported salary expense (SE) smaller than operational costs (OE). Filters a) and b) were considered insights for error reporting, since SE is included in OE together with other operational expenses according to financial reporting regulations, and a greater value of SE compared to OE would be incorrect according to accounting regulations. In order to follow a visual trend of the ration between salary expense and operational expense (SOER), we calculated the indicators for each county. The results are shown in Figure 3.

Figure no. 3. Evolution of financial reporting of profitable companies and considerations on errors, in Constanta and Tulcea



Source: Author's study based on the INSSE indicators

The results of the filters point to a suggestive representation for the source of the discordant trends observed for the financial indicators in 2015. Figure 3 reveals significant incentives for financial reporting nonconformities in 2015, since a number of 1812 companies from Constanta and 339 companies from Tulcea reported SE>OE. According to financial reporting regulations, OE includes several indicators, amongst which are SE, expenditure with raw material and consumables, merchandise, utilities, external services, other taxes and local fees, value adjustments of assets, environment costs and other expenditure. Thus, SE<OE or SE=OE would indicate negative reports for the other operational expenditures and, consequently, would be an incentive for financial reporting nonconformity. The large number of nonconformity instances found in 2015 represent a probability for more than 10% error in the case analysis of financial indicators for this period.

The nonconformities instances found during the other periods are presented with white (for SE<OE) and red (for SE=OE) in Figure 3. The observed nonconformity instances for the periods other than the year 2015 have ratios lower that 0.5% compared to the number of companies compliant to the filter SE<OE. Nevertheless, all the cases identified as nonconformity incentives should be removed from any financial analysis, since they may determine irregular or faulty findings.

The findings of the current paper point to an additional three-stage filtering plan to user-evaluation methods that may become necessary when operating with a large database in order to observe financial trends and investigate economic instances:

1. Populating the database according to the analysis purposes;
2. Running different empirical tests in order to observe discordant instances and identify nonconformities;
3. Running a new filter to the database in order to eliminate the nonconformities.

5. Conclusions

Financial reporting nonconformity is a major concern that may escalate into faulty managerial decisions, investment errors or misinterpretation of economic indicators or trends.

Once a source of nonconformity in financial reporting is found, an action plan is required to be customized for the economic interest of the claimant. If the interest is for enhancing conformity and quality of financial reporting, then the corrective action plan may be customized into improved training techniques or control mechanisms. If the nonconformity is assessed for operational efficiency purposes, then the action plan may be directed to enhancing the findings of sources and outcomes for errors, leading to the recognition of the need for different procedures and synergistic

managerial decisions aimed at efficiency. If the interest is aimed at forecasting reasons or trend observation, then the corrective action plan may be improved with empirical filters for nonconformity or discordant sources in order to offer consistency and accuracy to the reference database. This paper presents a contextual case study for the third instance. Filtering the information and the use of statistical methods to identify and model the chance of nonconformities are tools that may improve the efficiency of the research.

In this paper, new empiric approaches are proposed for sample evaluation that we believe effective to be considered in order to avoid potential biases in financial reporting analysis. Empirical assessment can bring an enhanced dimension to the examination and can broader the awareness of potential biases in the evaluation of financial reporting to substantiate sustainable reporting.

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Aspects Regarding the Organization and Activity of the Federal Reserve System and the European Central Bank

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Abstract

The Fed and the European Central Bank (ECB) are two key institutions on the global financial markets. The areas of action of these institutions cover approximately 36% of the world economy. Thus, a topic which tackles institutions such as the Fed and the ECB is and will continue to be a relevant subject.

The aim of this paper is to identify the similarities and differences between the two institutions, the guidelines and the adopted strategies Last but not least, the measures adopted in 2020 in the context of the COVID-19 pandemic will be presented

The objectives of the research are: the comparison of the main pillars on which the activity of the two institutions is based. The objectives, structure and organization, responsibilities and monetary policy instruments will be analyzed comparatively.

Key words: Fed, ECB, monetary policy, money market
J.E.L. classification: D60, E24, G28, H11

1. Introduction

Since their establishment and up to the present, central banks have played major roles in state, regional and even global politics. Although they were originally created for a variety of reasons - to collect funds for a war, to prevent possible financial crises and to stimulate business or to ensure and maintain price stability, today their role is to manage the monetary policy of the area in which they act in correlation with the legally defined objective (s).

Our research is concentrated on the following central banks: the Federal Reserve System and the European Central Bank. The two institutions are currently relevant worldwide, which is why they have been chosen for our research. Even if the Fed acts on the US territory, the decisions taken influence the interest rate and the exchange rate of the US dollar. The ECB is a supranational institution which conducts the monetary policy for the entire Euro area. The single European currency and the US dollar are the most widely used currencies in the world, which is why this topic is of great interest.

Neither of the two institutions was established among the first central banks in the world. Riksbank is the world's oldest central bank. The Fed was established in 1913, when there were already 20 other central banks.

The number of central banks increased exponentially after World War II, as a result of the decolonization and after the 1990s, along with fragmentation of the Soviet Union and the dividing process of the states in Central and Eastern Europe. In 1997 there were already 172 central banks.

The European Central Bank was set up on 1 June 1998, having as its predecessor the IME. The ECB became the supreme monetary authority for the Euro area on 1 January 1999.

The roles of the central banks have changed a lot from the time of their establishment to the present day. The monetary policy has become a major responsibility of a central bank.

2. Literature review

The U S' economy is the largest in the world as measured by nominal GDP, in 2019. ($21.43 trillion). The biggest contributor to that GDP is the economy's service sector which includes finance, real estate, insurance, professional and business services, and healthcare (Bureau of Economic Analysis, 2020).

The euro area with a GDP of $18.292 trillion (nominal; 2019), $18.377 trillion (PPP; 2020) according to Eurostat (2020) and the USA make up over 35% of the world economy. That explains why there are numerous studies on the Fed and ECB in the specialized literature. Hereinafter, we will refer to some of them.

The ECB's global position, as well as its monetary policy instruments were presented and analyzed extensively by Issing O., Gaspar, Angeloni & Tristani in 2001. The structure and organization of the ECB, its governing bodies were presented and its independence, responsibility and transparency were analyzed. ECB is an independent bank. Independent means that it is immune to the interests of the governments, it is not subordinated to any EU institution and is only accountable to the European Parliament, according to its responsibilities and sole objective: ensuring and maintaining price stability. All these desiderata were also recorded in the Maastricht Treaty's amendments. ECB is preoccupated about Euro area risk-free interest rates: measurement issues, recent developments and relevance to monetary policy. In Europe banks align with both the international standards and requirements imposed by the European Commission in a legislative context. (Georgescu, Radu, 2015)

There is a large number of structural policies that could significantly improve the functioning of the euro area (Section 3.1). For some of these policies responsibility lies at the national level, while for others agreements at the euro area or EU level are needed. Increased product and labour market flexibility, including flexibility in the allocation of labour and capital across firms, sectors and regions, would make it possible to limit economic costs (e.g., in the form of higher unemployment or lower wages) arising from relative price or supply shocks (Masuch, Anderton, Setzer, Benalal, 2018).

Eyalar R. C (2020) analyzes the differences between the objectives of the FED and the ECB and how these have been reflected in the monetary policy decisions adopted by the 2 institutions in various economic cycles. Other researchers have investigate the extent to which the United States and the countries of Europe have achieved economic convergence of their corporate sector (Valsan, Druica, 2020).

All the above considerations also refer to the topics which preoccupied us in our research.

3. Research methodology

The two brand institutions which are the subject of this paper are less comparable with other such entities. That is why the comparative analysis was chosen for our research. As a type of qualitative research, it has the advantage of being, on the one hand, easily understood and, on the other hand, replicable. In addition, the qualitative analysis is suitable for the study of a limited number of cases.

Some researchers claim that the comparative analysis is a bridge which connects the gap between the two opposite edges. The study will assess comparatively: the organization, policies and measures tackled in the current period.

Polland (2003) performs a comprehensive analysis of the structure and functioning of the two institutions ever since their establishment. This article examines modern central banking with a focus on the world's two most prominent central banks — the Fed and The ECB. It examines the structure and appointment process of the key policymakers at the central banks. Next, it highlights the tasks of those banks, focusing on the monetary policy process (Poland, 2003).

Braun (2016) analyzes the two institutions from the perspective of public's confidence in the legitimacy of the central banks. "Financial upheaval and unconventional monetary policies have made money a salient political issue. […] How central banks cope with this ambiguity depends on the monetary situation" (Braun, 2016).

In ECB's case, monetary policy decisions are unique to the entire euro area and apply uniformly in all the states that have adopted the single currency. However, the impact of these measures differs from country to country and from region to region.

Hereafter, we will compare the two central banks in order to identify the main differences and similarities between the ECB and the Fed in terms of organization and monetary policy.

The COVID-19 crisis has created an unprecedented situation for the institutions to be in. That is why the special measures adopted by the two entities were also tackled in the research.

4. The Fed vs. the European Central Bank. Organization and structure

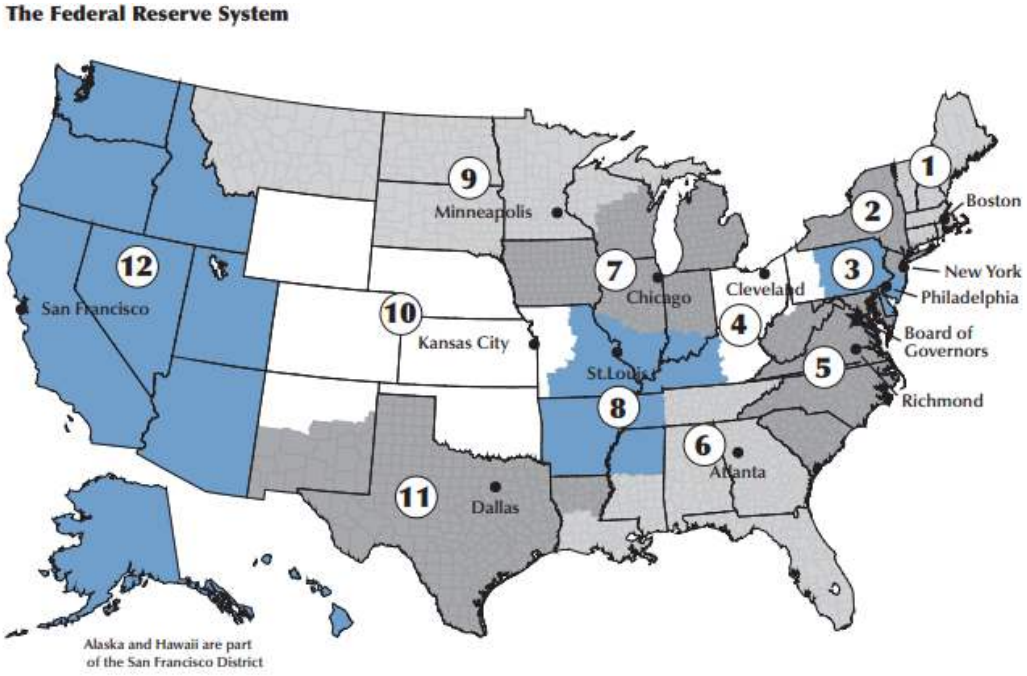
The Fed has the following structure:

- ✓ The Board of Governors has the role of overseeing the entire system and is responsible for the monetary policy;
- ✓ 12 regional banks with the role of supervising and examining the commercial banks which are members of the Fed;
- ✓ Member banks, all the national banks and all state banks which choose to be its members.

The Board of Governors was established as a government agency. The President appoints the seven governors with the approval and consent of the Senate, which enables the Administration and the Congress to influence the Fed by appointing the seven members to the council. The full term in office in the Board is 14 years and governors may be appointed at any time of the term. Appointments are made in installments, with a term expiring every 2 years. Two of the members hold the position of Chair and The Vice.

The banks of the Fed are responsible for issuing money and controlling the money supply of the U.S. dollar. The number of Federal Reserve Districts is equal to the number of regional banks, i.e., 12.

Figure no. 1: The territorial coverage of Fed's Regional Banks



Source: Fed

Within the ECB, the main decision-making bodies are the Governing Council, the Executive Board and the General Council. The Governing Council is the most important decision-making body. The Executive Board comprises 6 members with different mandates. The governors of the central banks in the euro area, as well as the 6 are members of the Governing Council.

Among the main responsibilities of the ECB's Governing Council (G. C.) are: making decisions on ECB's interest rates and adopting decisions to ensure the performance of the tasks entrusted to the Eurosystem.

The ECB Executive Board is elected once every 8 years and has a President, a Vice-President and four other members.

The responsibilities of the committee include:

- Preparing Governing Council meetings;
- Managing the day-to-day business of the Bank;
- Implementing the monetary policy for the euro area
- Exercising the powers assigned by the G.C.

The General Council comprises the President and the Vice-President of the ECB and the governors of the Central banks of the EU Member. The General Council can be regarded as a transitional body, and the Statute stipulates its dissolution once all EU member states have joined the single currency.

Figure no. 2: The euro area



Note: Only the countries which are marked in blue are members of the Eurosystem
Source: ECB

5. Measures taken by the Fed and the ECB during the COVID-19 pandemic

This situation created by COVID-19 brings atypical tools on the stage of economic and monetary policies.

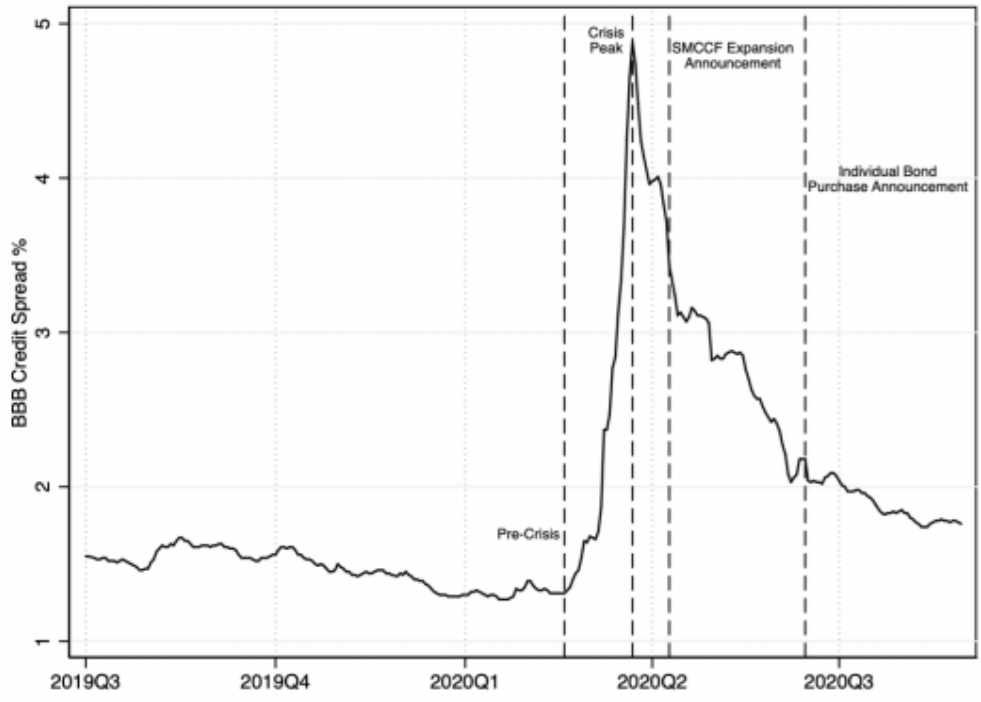
Thomas Flangan and Amiyatosh Purnanandam elaborate on this subject in *Corporate Bond Purchases After COVID19: Who Did the Fed Buy and How Did the Markets Respond*?. Next, we will present the measures taken by the two central banks in order to fight and limit the negative economic consequences generated by the COVID-19 pandemic.

A first important measure adopted by the Fed was the purchase of individual corporate bonds on the secondary market by SPV (Special Purpose Vechicle). This instrument was financed by the Treasury and the FED.

The infusion of capital at company level aims to avoid bankruptcies and reduce the number of unemployed people. However, the measure of purchasing bonds issued on the secondary market is not very effective, as it is very unlikely that it will be able to supplement the support provided to cover the financing need also of the other companies as long as the market does not bounce back (Flangan, Purnanandam, 2020).

On 9 April 2020, the expansion of the SMCCF program was announced, with the inclusion of high-yield corporate bonds in its scope.

Figure. no 3 BBB Bond Credit Spread During COVID-19 Crisis



Source: ICE BofA BBB US Corporate Index Option-Adjusted Spread from FRED

Figure 3 shows the evolution of BBB credit during the crisis caused by COVID-19. On the Y axis we have represented in percentage points the degree of credit spread, and the dotted lines correspond to several periods, respectively: the end of the pre-crisis period (February 19), the peak credit period (March 23), the time of the SMCCF Extension announcem (April 9) and the time of the individual bond purchase announcement (June 15).

Another measure adopted by the FED in March 2020 to fight the negative effects on the economy generated by the COVID-19 crisis was to reduce the monetary policy rate in the USA by 0.5% (from 1.5- 1.75% to 1-1.25%).

Following the COVID-19 crisis, the ECB also envisaged many measures to secure long-term monetary policy. On March 18, 2020, the Governing Council decided to launch an asset purchase program targeting both public and private sector securities valued at 750 billion Euros (Pandemic Emergency Purchase Program).

Also, in March of the same year, the Council decided to reactivate the swap agreement with Danmarks Nationalbank and increased the maximum amount to be borrowed to 24 billion Euros. In April 2020, a set of measures was approved with the intention of temporarily relaxing collateral constraints, thus facilitating their availability to Eurosystem's counterparties participating in liquidity-providing operations.

On the other hand, the interest rate for the main refinancing operations and for the facilitation of marginal loans or deposits remained at the same level (0.0%, 0.25%, -0.5%) until a robust convergence of the inflation of almost 2% is observed, but in decrease.

One of the main medium-term effects of the economic crisis generated by COVID-19 is supposed to be the gradual intensification of total inflation, based on the hypothesis of keeping HICP inflation, exclusively energy and food products, at a low level (1.2% in 2023).

6. Conclusions

The study that we have conducted shows that the two analyzed institutions have points in common, but also have both similarities and differences. The differences refer both to the functioning and organization of the decision - making structures for monetary policy, and to the objectives and the strategic plan of the two institutions.

Both are responsible for monetary policy, monetary issuance, and controlling the money supply. Both are independent institutions, although we can say that the ECB has a higher degree of independence through its Statute and structure. Although both are central banks, the Fed is more centralized and less independent. The statement is validated by the fact that the right to issue currency and regulate its value rests, by constitution, with the United States Congress.

The Fed has multiple objectives and responsibilities regarding consumer credit and long-term interest rates as opposed to the ECB which has a single goal: maintaining price stability.

The economic and financial structure of the euro area does not resemble that of the USA. That is why the adopted policy measures are different and have zonal effects.

On the other hand, both institutions emphasize the transparency of the decision-making process and the facilitation of the communication of these economic decisions to the public and to market participants.

Given the ECB's objective, the review of the monetary policy's strategy has known an unforeseen delay due to the COVID-19 pandemic. After stopping the effects of the pandemic, a comprehensive analysis is expected of the variables which may influence the objective of setting prices in the medium term.

On the other side of the ocean, the US central bank outlines a new strategic framework for monetary policy and medium and long-term objectives, which will bring important changes in the ranking of the objectives assumed by the FED.

Although we are in the midst of implementing measures to fight the effects of the COVID-19 pandemic we can say that the analysis is just starting and we intend to continue to monitor the monetary phenomena in the two areas of interest.

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Bank Fraud – a Current Issue

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Abstract

The evolution of technology and communication in virtual environments has led to major changes in all areas, including the banking one. Bank customers can get receipts and make payments, make deposits, transfers and purchases using electronic money. Everything is "a click away", including the possibility of fraud.

That is why nowadays an important and relevant issue is banking security. A constant concern for the banks is to ensure the electronic transactions of their customers. However, fraud techniques are becoming increasingly sophisticated and more difficult to detect.

The aim of this paper is to highlight certain issues related to bank fraud (concepts, causes, public perception) and, thus, to help the participants detect and prevent possible attacks. The objectives of the research are: the study of banking ethics' issues, the perception of bank fraud in Romania and the presentation of the measures adopted during the pandemic.

Key words: banking system, economic fraud, bank fraud
J.E.L. classification: K42, G01

1. Introduction

In short, fraud is the illegal use of a system or asset and it can occur in any field, including the financial one. In the banking sector, fraud is known to occur as a result of unsecured credit and debit card transactions or use of Internet banking services. Money laundering and personnel fraud are other aspects of bank fraud. The losses due to fraud at global level are enormous and pose a major threat to the legal economy.

In 2019, consumers reported losses of approximately $ 1.9 billion, up by 293 million since 2018. Of these, more than 45% are losses due to the use of credit cards. Securing data in the context of the increasing e-commerce is an older concern for economists, the subject being tackled by Lazar and others and discussed at a global level (Lazar, Spatariu, Lazar, 2010).

In recent years, e-commerce cannot be ignored, and even more so in the current period when due to the COVID-19 pandemic, a large part of e-commerce has moved online.

In the context of a changing global banking landscape, in which branch networks are shrinking, digital payment volumes are increasing, and payments are being processed within seconds, fraudsters are creatively finding new ways to defraud banks and their customers. Detecting fraud in the banking activity is a vital aspect nowadays, since finance is a major sector for the society. This paper, through the presented problems and issues, and the performed analyses intents to be a useful and relevant tool.

2. Theoretical background

The development of technology and implicitly the use of the Internet in recent years has led to an exponential increase in electronic payments and Internet banking use, mobile banking, and others. The easy access to bank accounts by banks' customers and free movement of capital have led to the

expansion of the financial markets, the diversification of electronic payment methods, but also to the emergence of specific risks.

The banking industry holds a critical position within the financial sector and plays a vital role in the development of a nation's economy. The banking sector has a decisive role in the savings-investments relationship, being an intermediary between those who have a surplus of financial resources and those who have a deficit (Ajala, Amuda and Arulogun, 2013).

The banking sector is the main depository of the population's savings, but also an important link in the payment system. Credit institutions, through their services and products, have the capacity to create money, to allocate financial resources and are direct participants in the implementation of the monetary and credit policy (Akindele, 2011).

The money supply influences the level of economic activities and the national income, therefore the safe access of one's own or borrowed resources is an essential element.

The success of the financial intermediation activity depends on the state of health of the banking institution and of the entire sector. This means that any problem or a problem that opposes the free flow or proper functioning of the sector will have a strong effect on other sectors of the economy. Therefore, it is of great importance to prevent or quickly diagnose any factor which may impede the proper functioning of the banking sector. These factors include bank fraud.

After the financial crisis of 2007, even more researchers tackled the subject of banking ethics. The critical situation in the United States has brought to the fore the issue of moral hazard in post-crisis financial decisions. "Banks should adopt alternative strategies, to increase customers' confidence and to configure a banking activity based on social responsibility providing investment for social and ethical purposes. It also aimed to provide a place for people savings where the customer could be sure that their money would not be used for projects they didn't approve of. The lending criteria of an ethical bank is that what the borrower plans to do with the money must be socially, environmentally or culturally useful" (Male, 2010).

3. Research methodology

In order for banks to function efficiently and to be able to make a significant contribution to the economic development of the states, the industry must be secure, stable and sound. In order for this to happen, a strong system of internal control, respect for banking ethics and good corporate governance practices are needed. Andrew (2008) notes that a strong internal control system is a very important component in the banking management and a solid basis for the safe and sound functioning of the banking industry. Therefore, since technology has advanced, it is necessary for all the entities involved to know and find ways to protect the industry from fraudulent activities and unethical behavior.

Donald Cressey's model is used in order to examine certain aspects of bank fraud.

"**The fraud triangle**", a theory conceived by Donald Cressey (1953) based on interviewing a number of convicts for committing fraud, describes three factors which are present in any fraud situation: pressure, rationalization, opportunity.

Pressure is the one that can induce the need to commit fraud. It is generated by the high demands in meeting goals, imposing increased productivity, fear of losing a job, reduced pay, and so on. Any of the above situations or a number of other factors could put pressure on a person to be tempted to commit fraud.

Rationalization comes from the mentality of the deceiver who justifies his/her fraud. He/she thinks that the company can afford the losses or that the times are hard, the personal goals are unattainable or he/she is driven by revenge.

Figure no. 1 The Fraud Triangle



Source: (Cressey, 1953)
https://www.agacgfm.org/Intergov/Fraud-Prevention/Fraud-Awareness-Mitigation/Fraud-Triangle.aspx

Opportunity is the situation which allows fraud to occur (often when internal controls are weak or non-existent). Moments of economic stress present many opportunities to commit fraud that may not be present during better times. Some examples would be: fewer people doing more activities without careful supervision, the same level of supervision over several people, promoting inexperienced or poorly trained people to key positions.

In order to eliminate fraud, the organization must eliminate one of the three elements of the triangle.

For the assessment of the public perception in Romania and worldwide regarding bank fraud, we have relied on the quantitative analysis. Already published studies have been analyzed, and their results have been interpreted in this paper.

4. Bank fraud issues

Fraud can be defined as an intentional act of deception which seeks to obtain an unjustified advantage to the detriment of the loss of (individual or organization) property or legal rights. The Federal Bureau of Investigation (FBI, 1984) defined fraud as the fraudulent conversion and acquisition of resources or money through false pretenses.

The Association of Certified Fraud Examiners (ACFE, 2014) speaks of the occurrence of fraud when an individual uses his/her position for personal enrichment or when he/she uses the assets or resources of the organization deliberately, unethically, in his/her own interest.

Fraud is specific not only to the banking industry, it is a general phenomenon. Some multinational organizations, such as Enron, Worldcom, etc. were negatively affected by the occurrence of fraud, therefore, many entities have taken measures to fight it, such as clarifying the guidelines and the responsibility of the departments and positions, introducing a code of ethics to prevent the unethical behavior of the employees.

Bank fraud can take many forms and often involves both people inside (employee) and people outside the organization, who come together to commit an action based on unethical behavior.

Currently the main question is: *What are the biggest threats that the banking system is facing today?* Fraud can generally be classified as internal or external. Internal fraud occurs when employees identify an opportunity to commit fraud. External fraud is committed when (external) third parties, such as customers and suppliers, defraud institutions. In some cases, these parties may work with internal personnel in order to achieve their objectives. Regarding bank fraud, there are

several main types, such as: (credit / debit) card fraud, checks fraud, electronic access fraud, identity theft.

5. The perception regarding bank fraud in Romania and worldwide

Bank fraud, among others, has been a concern in Romania both at the institutional level and in the field of research, especially after joining the European Union. A study published in 2009 performs an analysis of the anti-fraud activities at national and international level (Spătariu, Asaloş, Grozea 2009).

In 2018, a study was conducted by PwC on economic crime - fraud regarding the activity in Romania and worldwide. 60 companies shared their experience and perception on economic crime regarding the activity in Romania and worldwide. The organizations represented in this survey come from various industrial sectors, but mainly from financial services, manufacturing, energy, utilities and mining, technology, automotive, retail and consumer, and pharmaceuticals and life sciences.

Figure no. 2: Surveyed industries in Romania and worldwide



Source: PWC - Global Economic Crime and Fraud Survey 2018. A front-line perspective on fraud in Romania p. 6

Romanian respondents consider that economic crime is a problem. 42% of the surveyed organizations reported that they had been subjected to economic crimes in the last 24 months. Although the reported rate of economic crime is lower than the global (49%) and regional (47%) results, incidents of fraud may not always be detected. The results of the 2018 survey show that the level of fraud reported by Romanian respondents has increased significantly compared to the 2016 rate (17%). The possible explanations for the discrepancy lie in the increased awareness of the benefits of periodic fraud risk assessments, together with a higher cost of fighting fraud.

One in ten Romanian respondents did not perform a risk assessment at all in these 24 months. Although the role of this fraud prevention tool is still largely underestimated, there has been a generally encouraging development since PwC's last survey when 24% of respondents stated that they had not carried out such an assessment. Regarding the expenses, in the 2016 survey, 35% of the Romanian organizations reported that they increased the amount allocated to fight fraud. If we consider that a fraud incident takes two years on average to be detected, the benefits of past spending growth are becoming visible now.

6. Fraud and the COVID-19 pandemic

The Coronavirus pandemic and the social distancing that accompanied it led on the one hand to the exponential growth of online commerce and on the other hand to the shrinkage of many industries such as: tourism, air transport, services, etc. As the issues related to the coronavirus pandemic continue to spread around the globe, the measures imposed by the authorities and the competent bodies of each state in order to slow down its effects and minimize the potential damage come in

various forms and approaches. When these measures come against the background of a long-anticipated recession, facing a financial crisis in the COVID-19 era is predictable.

It is well known that, while economies are declining and the employment rate is falling sharply, fraud is on the rise during recessions. Working in the field of criminal offences and compliance for over two decades, we have witnessed four major crises. After each crisis, we have seen an increase in fraud, as well as in the damage it has caused to companies, institutions and states. In the case of the crisis following this pandemic, expectations are similar. A survey conducted by Deloitte showed that more than 60% of companies expected an increase in fraud as a result of the global financial crisis of 2008.

Even though in the last decade there has been intense discussion about compliance in the area of AML (*Anti-Money Laundering*) and KYC (*Know Your Customer*), the field itself and its professions are relatively new. Most likely, most professionals working in this field today have not experienced a recession or real economic slowdown while working in compliance departments. The experience and internal literature of organizations regarding money laundering are generally limited, largely covering only periods of economic boom.

7. Conclusions

Bank fraud has been (and still is) a relevant issue. If in the past bank fraud was almost similar to physical theft of money, today bank fraud has moved mainly towards virtual environments. That is why the current bank fraud problems are mainly related to cyber security. However, the initiators of the fraud can also be the bank's employees, or its customers, all of them behaving unethically.

Banks are complex financial institutions that operate in a constantly changing business environment and face high levels of risk. They face regular fraudulent attacks, they deal with fraudulent actions on a regular basis.

One can see that over time banking institutions have taken measures to fight fraud by increasing internal control and audit and by using modern technologies and econometric models to identify security breaches or potential situations of fraud.

Although "the Fraud Triangle" captured the main pillars of illicit actions in the banking field, one can notice that the problem is much more complex. That is why national and international institutions work together to find solutions.

In Romania, a recent case (early 2020) of fraud reported was a product of social engineering and data theft. The criminal action was initiated by the NBR/National Bank of Romania at DIICOT. A greater accountability than in the past of credit institutions is noticed. If a few years ago, this type of fraud was the responsibility of Romanian state prosecutors and culprits were sought at the level of individuals or responsible organizations, nowadays banks are held accountable for security breaches. The central banks and implicitly NBR command the attention of the financial institutions and correctly request that they apply very carefully the customer awareness measures. This is an important step for AML and KYC compliance in the banking sector.

We can conclude that the issue of bank fraud remains an open topic which will continue to be a concern for the authors and all the actors of the financial-banking markets.

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Considerations Regarding the Recording in the Entities' Accounting of the Instruments for Financing the Operating Activities

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Abstract

Recent developments in the national economy have shown the need to diversify and make more flexible the instruments used to finance current operating activities. The often negative dynamics of the labor market, the massive restrictions on the provision of financing resources, the emergence of deficits / urgent working capital needs in certain sectors / subsectors / activities cause companies to worry about the financial resources needed to cover overdue payments. Transactions using equity instruments can be a solution in this context. Share-based payments / financial instruments, relative to the fair value of equity instruments, may form a flexible set of instruments to meet the requirements of ensuring a flexible financial package to support the operating activities of the entities .

Key words: financial instruments, accounting, trends.
J.E.L. classification: M41, G32.

1. Introduction

Romania is facing a major economic crisis and is just beginning. As in many other countries, the number of unemployed has exploded. While many of us have stayed at home, restaurants, coffees shops and bars are closed. Most malls are closed, and all this is reflected in the unemployed. No one can afford to pay wages indefinitely while people stay at home without producing anything. For this reason, although the situation of many Romanians is very sad, they are not the only ones in this situation. At the beginning of April 2020, according to official data provided by the Ministry of Labour, over 1.1 million Romanians were sent unemployed (www.insse.ro). Contract terminations have taken place since April 6, and those affected by this decision are divided into two categories. About 950,000 have their employment contracts suspended, while a number of 190,000 people have their individual employment contracts terminated. In other words, the latter were fired (www.insse.ro).

Operating activities are the main revenue-generating transactions / cash flows for various entities, depending on the composition of the business in the declared object of activity. For this reason, identifying and allocating the cash needed to support operational activities is a key objective for entity managers. The issues raised by the use of financial instruments by entities in various fields, professional accountants, financial advisers are related to (https://eba.europa.eu) :

- financial instruments held for trading;
- loans and receivables;
- embedded / included financial instruments;
- convertible bonds with put options;
- strong foreign exchange supply contracts;
- recognition - derecognition of financial instruments ready to be purchased on the market;
- investments in order to be held to maturity;
- lowering of the entity's credit rating;
- portfolio composed of impaired individual assets;
- cash flow hedge accounting.

2. Theoretical background for accounting of financial instruments used for operating activities

A financial instrument is any contract that simultaneously generates a financial asset for one entity and a financial debt or equity instrument for another entity. More simply, financial instruments can be viewed as cash flows with certain risks, depending on the predictability of these flows (IASB , 2018) .

A financial asset is any underlying asset that represents (Nicolae, 2010) :

- cash;
- an equity instrument of another entity;
- a right stipulated in the contract to receive cash or another financial asset from another entity or to exchange financial assets or financial liabilities with another entity under conditions that are potentially favorable;
- a contract that will be or can be settled in its own equity instruments and is a non-derivative financial instrument for which the entity is or may be required to receive a variable number of its own equity instruments or a derivative financial instrument that will be or it may be settled otherwise than by exchanging a fixed amount of cash or another financial asset for a fixed number of the entity's equity instruments.

For this purpose, the entity's equity instruments do not include instruments that are themselves contracts for the receipt or delivery of the entity's own equity instruments.

A financial liability is any liability that is (Nicolae, 2010) :

- a contractual obligation to divest liquidity or another financial asset to another entity or to exchange financial instruments or other financial liabilities with another entity under conditions that are potentially unfavorable to the entity;
- a contract that will be or may be settled in its own equity instruments and is a non-derivative financial instrument for which the entity is or may be required to receive a variable number of its own equity instruments or a derivative financial instrument that will be or it may be settled otherwise than by exchanging a fixed amount of cash or another financial asset for a fixed number of the entity's equity instruments.

To this end, the entity's own equity instruments do not include instruments that may themselves be contracts for the future receipt or delivery of the entity's own equity instruments.

Definitions of financial assets and financial liabilities include the terms financial asset, but the definitions are not circular. When a contractual right or liability arises to exchange financial instruments, the instruments to be exchanged give rise to financial assets, financial liabilities or equity instruments. A chain of contractual rights or liabilities may be established, but ultimately this leads to the collection or payment of cash or the acquisition or issuance of an equity instrument (Nicolae, 2010)..

Monetary financial assets and liabilities (also considered as monetary financial instruments) are financial assets and liabilities that are to be collected or paid in cash, for a specified or determinable amount.

Common examples of financial assets are: trade receivables and payables, trade receivables and payables, loans receivable and payable, and receivables and receivables.

3. Research methodology - Evolution of financial instruments used for operating activities - empirical aspects of research

Access to bank financing is still limited for many companies in Romania, so not even 2 out of 10 companies can turn to banks (www.insse.ro). Between the rigidity of banks and the lack of vision of companies, where does the change have to come from?

Only 15% of Romanian companies are bankable according to the indicators they report annually, ie they can access financing from banks, which outlines both a problem of entrepreneurs and businesses in terms of business capitalization on the local market, and a problem of understanding on the part of the banks (www.insse.ro) .

Of these, very few have a turnover of over 1 million euros, ie only about 10,000, being the only ones who can access a larger loan (www.insse.ro) . The rest are companies with a turnover of less than 1 million euros, so the investments are smaller.

But in a context where the economy is growing and the banks' business is still growing, why aren't there more bankable companies? In January 2020, loans in lei taken by companies and the population totaled 181.4 billion lei, of which loans to companies represent 72 billion lei, increasing by 4.5% compared to January 2020 (www.bnr.ro).

Banks are looking for profitable companies. Obviously, they will not credit a company that has been at a loss or one that does not have a business vision, which it does not explain so as to be sustainable and which does not say exactly what it wants to do with that money. Romanian companies are quite under-capitalized because the Romanian entrepreneur did not have this exercise to capitalize on his business, and this capitalization is a process that happens over time.

At the same time, banks look at capitalization indicators and how entrepreneurs understand and look at these indicators in the future. Moreover, the lifespan of a company can be important. Thus, small companies or start-up entrepreneurs, such as start-ups, are not the main investments of banks because they do not generate profits as large as a medium or large company.

Today, the Romanian economy is going through an exchange of generations that we all think we are observing and it is an exchange that also comes with challenges. Consequently, banks and companies need to understand very well what is the ecosystem in which lending and business take place today. Probably start-ups are just an investment in the future, because at a start-up you can't put too much money, as a bank.

Although start-ups need a history to prove their business idea, banks should not ignore these businesses, in the context in which Romanian entrepreneurs have started to deliver increasingly scalable projects.

In this process, a "learning curve" intervenes. Thus, start-ups can learn the steps in this tango in which they enter with the banks, and lending institutions can be educated in terms of "posture" - as they expect these entrepreneurs. Here is a learning curve, including for banks, that I can apply in the analysis of these startups. Because the entrepreneur is the one who knows best the trends in the industry in which he operates, he must know how to further explain this industry, which can be materialized in an experience that the bank can gain on that industry and that it can use from now on in the risk model it has.

4. Survey of the specific developments about financial instruments used for operating activities in Romania

In countries with a more developed business environment and in which the financing ecosystem has matured, credit institutions have an important role in financing entities, along with mixed capital structures and private capital (https://eba.europa.eu) .

We must first discuss the difference between bankable and fundable companies. The bankable ones are attractive for banks, and the financeable ones can also be attractive for private equity. It can be said that in Romania there are still few active investment funds, and they focus only on certain segments. At the same time, the fund can offer to buy debt, but also a stake in the company, and some companies only want to sell debt, because they only need a loan (www.bnr.ro).

An investment fund can come in two ways. He can give credit by practically buying debt, he can also ask for capital, or he can ask for a combination. The bank only wants debt, that is, it places money for an interest. Interest rates on private equity funds are higher than on banks. Moreover, the entrepreneur must want a private equity fund to become a shareholder. We appreciate that bank financing will continue to be a challenge for companies at the beginning of their journey in Romania, but in the case of well-developed business plans with an educated mentality of the bank, even these financings can prove to be a success (https://eba.europa.eu) .

If we talk about entrepreneurs at the beginning of the road is a challenge and will remain a challenge, but with a business plan, choosing the right bank, maybe even from the second year of experience could turn to banks. The challenge becomes more interesting for companies that have both size and activity. Companies must also dimension their activity according to the bank's products. For example, if you use factoring as a product in your activity, you have to go to a bank that has that

product in its portfolio and that it does well (https://eba.europa.eu).

We say that local banks should try harder and harder to accept such financing and proactively ask for a business plan that is as well documented as possible from the entrepreneur. Moreover, banks must believe in the vision put on electronic support by the entrepreneur. When such a practice reaches maturity and habit on both the bank's and the entrepreneur's side, we reach a more advanced level of understanding and financial education on both sides (https://eba.europa.eu).

5. The observation of the accounting issues associated with financial instruments used for operating activities

Entities need to have a medium-term vision, because the short term can be extremely misleading. A medium-term vision must be a concern of entrepreneurs. This concern must be anchored in the factors that can influence their business and that are external. The better they understand this ecosystem, the more credible they will be to their business partners, as well as to the banks they borrow from. It is considered that banks cannot fight the phenomenon of supplier credit, which is growing from year to year in the Romanian economy and draws attention to the fact that it generates a bubble due to which the entire economy could suffer (www.insse.ro). Banks cannot fight supplier credit. At best they can force the entrepreneur to be more careful than he is. The concern must be with the companies. We are talking about a bubble, which, if it breaks, will all suffer. A more rigorous management of trade receivables is a concern that the entrepreneur must have for the health of his business. In general, the supplier credit is interest-free. Each small and medium-sized entity has become a kind of small bank for the ecosystem in which it operates.

The lending market to Romanian companies could be blown up by the entry of players from new industries (www.insse.ro). For example, the giant Amazon has announced that it will start lending to companies in the US, a move similar to the loans granted by the Chinese giant Alibaba for SMEs (https://eba.europa.eu). We appreciate that the Romanian market could also meet such new players and consider that such a move could be made even by the players in the telecom industry, who have a lot of capital at their disposal. Several players could enter the market, including telecom companies considering this option because they have a lot of cash available. They have a lot of cash, they have developed online platforms, they have an existing customer base, so it is a type of lending that does not start from scratch. But until it reaches a certain level of exposure in Romania, I think it will take some time (www.insse.ro).

A derivative instrument is a financial instrument or other contract within the scope that meets all three of the following characteristics (https://eba.europa.eu) :

- its value changes in response to changes in certain interest rates, the price of a financial instrument, the price of commodities, exchange rates, price or rate indices, the credit rating or lending index, or in other variables, provided that , in the case of a non-financial variable, this should not be specific to a contracting party (sometimes called a "support");
- does not require any net initial investment or a net initial investment that is lower than would be required for other types of contracts that are expected to have similar reactions to changes in market factors;
- is settled at a future date.

The main difference between derivatives and other financial instruments is that, in the case of derivatives, the buyer pays only part of the value of the underlying asset, but can fully benefit from the change in the price of this asset (https://eba.europa.eu).

Over the last 30 years, the use of derivatives has increased, especially as a result of changes in the world economy (https://eba.europa.eu).

Derivatives allow companies to manage or adjust the specific risks to which they are exposed in order to stabilize their cash flows (https://eba.europa.eu). Thus, companies reduce their trading costs and invest when the time is right, not when they happen to have cash. Firms can protect themselves against some of these risks through "natural" methods. For example, they can hedge against currency risk by setting up factories in the countries where they want to sell. But such methods of controlling financial risks are often difficult to apply in practice. Derivatives offer a much more effective way to hedge specific risks.

6. A case study of the accounting records for financial instruments used for operating activities

On Jan 1, 2020, the entity grants 200 shares to 10 employees in the management sector at the price of 5,000 m.u. (monetary unit) per share. (Nicolae, 2010).

The granting of equity instruments is spread over a period of 4 years.

The recording accounts used (as proposed in the IFRS accounting plan) for the exemplification of these accounting records were selected based on the formulated assumptions (Nicolae, 2010).

Accounting data

(Making entries by the author)

Registration of granted capital instruments :
Total fair value of equity instruments granted = 10 employees x 200 shares x 5,000 m.u. =
= 10,000,000 m.u.

1. Recognition of expenses for year 2020 = 10,000,000 m.u. x 1/4 = 2,500,000 m.u.

Debit *Expenditure on remuneration in equity instruments* 2,500,000
Credit *Benefits granted to employees in the form of equity instruments - stock options* 2,500,000

The profit tax related to the non-deductible expenses is calculated for year 2019:
Income tax calculated = 2,500,000 m.u. x 16% = 400,000 m.u.

Debit *Current income tax expenses* 400,000
Credit *Current income tax* 400,000

2. Recognition of expenses for year 2021 = 10,000,000 m.u. x 1/4 = 2,500,000 m.u.

Debit *Expenditure on remuneration in equity instruments* 2,500,000
Credit *Benefits granted to employees in the form of equity instruments - stock options* 2,500,000

The profit tax related to the non-deductible expenses is calculated for year 2020:
Income tax calculated = 2,500,000 m.u. x 16% = 400,000 m.u.

Debit *Current income tax expenses* 400,000
Credit *Current income tax* 400,000

3. Recognition of expenses for year 2022 = 10,000,000 m.u. x 1/4 = 2,500,000 m.u.

Debit *Expenditure on remuneration in equity instruments* 2,500,000
Credit *Benefits granted to employees in the form of equity instruments - stock options* 2,500,000

The profit tax related to the non-deductible expenses is calculated for year 2021:
Income tax calculated = 2,500,000 m.u. x 16% = 400,000 m.u.

Debit *Current income tax expenses* 400,000
Credit *Current income tax* 400,000

4. Recognition of expenses for year 2023 = 10,000,000 m.u. x 1/4 = 2,500,000 m.u.

Debit *Expenditure on remuneration in equity instruments* 2,500,000

Credit *Benefits granted to employees in the form of equity instruments - stock options* 2,500,000

The profit tax related to the non-deductible expenses is calculated for year 2022:
Income tax calculated = 2,500,000 m.u. x 16% = 400,000 m.u.

Debit *Current income tax expenses* 400,000
Credit *Current income tax* 400,000

5. Exercising options in 2023 :
The balance of the account "Benefits granted to employees in the form of equity instruments - stock options" is = 10,000,000 m.u

Debit *Benefits granted to employees in the form of equity instruments - stock options* 10,000,000
Credit *Paid subscribed capital* 2,500,000

When implemented in practice, entities may also consider other accounting records alternatives as long as there is a fair presentation of the results in profit or loss and in the statement of financial position.

7. Conclusions

In my opinion, the expansion of the use of share-based payments by various companies ensures a positive trend in terms of the flexibility of salary packages granted to employees.

In the current context, of an economic, financial, social environment marked by major elements of unpredictability, the use of remuneration instruments with share-based payments is a factor of employee loyalty.

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Implications of Expanding the Use of Information Technology Tools in Accounting of Finance Transactions

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Abstract

Blockchain is a technology that springs within its theoretical parameters from the conceptual frameworks of accounting that we encounter in the emerging of today's business . In this paper, in a simplified approach, we try to present a sketch of a set of aspects of the directions to be followed in the implementation of this technology and the likely impact on the accounting of operations in the real estate sector. Currently undergoing a rapid evolution, marked by the applicability to unprecedented levels of information technology (IT) tools on the accounting of entities, we consider it necessary to develop multidisciplinary approaches to the use of new technologies in accounting. Blockchain opens the door for new approaches to accounting information processing. It is now possible to perform multi-dimensional processing of financial - accounting information, processing that goes beyond and develops the traditional accounting paradigm.

Key words: blockchain technology, accounting, trends.
J.E.L. classification: M41, G32.

1. Introduction

Information technology called generic blockchain is currently experiencing a real euphoria among the governing bodies of financial and credit sector entities, leading economic entities, public institutions and individual actors (www.hyperledger.org). The complex of related technologies called blockchain represents the software packages used for the circulation of cryptocurrencies found worldwide under the generic bitcoin label. The data on the situation existing until the financial year 2013 - inclusive - show us a spread of global investments in bitcoin used as an alternative currency, until the moment when there was a dramatic decrease in the price of bitcoin. This phenomenon has generated a phenomenon of abrupt increase in the interest rate on the blockchain. The global amount for the amounts allocated / invested in both bitcoin and blockchain reached in 2015 an amount that we can appreciate as a special threshold, worth 1 billion USD. Evolutionary data show that the blockchain is a turning technology, able to radically change the conduct of financial transactions, as they are now done, in the manner known by financial market players. Blockchain technology has been characterized as a tool with a striking novelty for a new Internet - we could rightly say. Can we place ourselves in the position of imagining - as a game of the mind - that we would have known about the immense power and benefits / dangers of the Internet a very short time before it appeared? What would have allowed such a set of information ? (www.hyperledger.org) F

inancial and credit institutions, very large non-financial institutions have seen the power of the blockchain to radically change today's society and business, have therefore decided to allocate millions of dollars or euros in start-ups related to the practical application of blockchain technology.

Starting from the current data on the capabilities of blockchain technology, we can say with conviction that we are, in fact, only in the early phase of blockchain applicability. Well-known entities in various fields of business, which intuit and implement blockchain technology, in a fast way, will be able to become the giant companies of tomorrow. Recently, billions of dollars have been allocated for research and development of blockchain technologies, being implemented various technical solutions for capitalizing on the potential of blockchain in various areas of business and

management of public entities. The adequacy of blockchain technology is being tested in various contexts in today's society. In the last quarter of 2017 alone, Initial Coin Bids (ICOs) raised more than $ 3 billion in capital for blockchain projects (www.hyperledger.org).

What is a blockchain? A blockchain is a decentralized register / set of registers in which data on transactions is stored, in a network of servers or computers. This network consists of nodes owned by independent entities that use a cryptographic protocol to validate the transactions that are performed. The instructions that make up the Blockchain protocol ensure the security conditions, having a high reliability, so as to ensure the protection of the data entered in the registers against errors of unauthorized input or modification. The register / registers in the blockchain network confer the attributes of permanence / non-modification, security and transparent accessibility for the users of the network (www.hyperledger.org).

Security. For hackers trying to access private information, a blockchain is the ultimate obstacle. A hacker should infiltrate countless servers and manipulate all the data in them to gain access to the information they are looking for. Fully decentralized and replicated to thousands of nodes, blockchain networks are really impossible to penetrate and manipulate by hackers or other dangerous entities (www.hyperledger.org).

Immutability and trust. Another defining feature of blockchain technology is the immutability of the data it contains. In simple terms, once the data is recorded and validated by the entire network, it cannot be changed. The resistance of data immutability in the blockchain takes place thanks to the synergy of the three technologies: cryptographic keys, a distributed register and a validation protocol. This means that records kept on a blockchain can be considered reliable as such, and no bank or regulatory agency can support them (www.hyperledger.org).

Cost reduction. Businesses can involve a lot of programs and databases, which sometimes present a problem even in a single company by accumulating commissions in complicated transactions. With enough successful implementations at the level of several independent businesses, blockchain can dramatically reduce transaction costs, increasing investor profit, which explains the investment of many institutional funds in blockchain (www.hyperledger.org).

Accuracy. Blockchain networks execute a protocol that rewards the accuracy of the information they contain. They also keep track of transactions and can be reliable in operating dynamic data at speeds that organizations have not known before. In the same way that people have not fully understood the possibilities of the Internet, the extent of the improvements that blockchain technology can bring is still unclear. However, even in the relatively infant stages, the blockchain offers a number of key benefits to organizations that are willing to accept it (www.hyperledger.org).

2. Theoretical background for the use of blockchain in accounting

To get into its current form, the Internet, which appeared in 1977 as a small number of interconnected computers that could carry a small amount of data, has undergone drastic changes. Currently, the amount of data that can be transported is limited only by the capacity of storage units, for interconnection there is no need for even a wire, and communication through it has become a necessity in everyday life. However, although this evolution opened up new opportunities, one problem intensified, namely, trust between people reached a critical level, being highlighted especially in the field of business (www.hyperledger.org).

We are about 7.6 billion people and we trade 100 trillion dollars annually. Each of these transactions involves trusting your partner. Trust is the basic currency of the trade, but nevertheless, instinctively, we start with the idea that the partner has something to hide or is trying to gain advantages from the transaction (www.hyperledger.org).

Thus, in order to be able to trust each other, it is necessary to check in advance the partner's transaction history or the existing data about him. The solution is to use intermediaries to store and find out data about these partners (www.hyperledger.org).

Ex. When purchasing a vehicle, the first thing that is checked is the history of accidents. It is necessary to investigate the history in order to determine the possible damage that the vehicle has suffered or to determine the level of care of the vehicle www.hyperledger.org).

Blockchain technology is a product created to resolve the elements of uncertainty and suspicion that arise in transactions / contracts concluded between the parties / business partners. The first activities in the development of technology were recorded in the financial year 1991, when 2 researchers - Stuart Haber and W. Scott Stornetta, first addressed the issues of building a network of nodes - a blockchain with encrypted access keys. (www.hyperledger.org). In the financial year 1992, the two mentioned scientists, together with Dave Bayer, integrated the Merkel type graphs in this model in order to optimize the system. The three did not know at the time how much they could change the concept on which they were based. (www.hyperledger.org).

As a result of the devastating effects of the 2008 financial crisis, a blockchain model was devised, representing a distributed database system. It was intended to advance a solution to change the technical, practical ways in which monetary transactions are carried out through various financial-banking and credit institutions. Through a peer-to-peer network and distributed servers, accessed for transactions between the parties, a blockchain database gains autonomy (www.hyperledger.org).

The first version of this concept was used in the development of Bitcoin, which appeared in 2009. Bitcoin's blockchain database reached an impressive size of 100 GB at the beginning of this year, with the total number of transactions being approximately 262,500,000, with a total amount of 50 trillion dollars, a single currency reaching a value of over $ 5,000, with an increase of over 750% (www.hyperledger.org).

Structure and implementation

In short, the concept of blockchain is simple, representing a distributed database that maintains a dynamic list of records. The association with other concepts such as transactions, smart contracts or cryptocurrencies, makes the concept itself more difficult to understand (www.hyperledger.org).

3. Research methodology. Evolution of real estate transactions - empirical aspects of research

In short, the concept of blockchain is simple, representing a distributed database that maintains a dynamic list of records. The association with other concepts such as transactions, smart contracts or cryptocurrencies, make the concept itself more difficult to understand (www.hyperledger.org).

A _blockchain is a chain of interconnected blocks, each node containing the hash key of the previous node, except for the first block called genesis (www.hyperledger.org).

Normally, the structure of a block consists of two main components: a header and a body. The header includes the current version of the block, the hash key of the previous block, the hash key of the current block, a time signature, a counter and target bits, and the body consists of transactions (www.hyperledger.org).

A hash function applied to an object helps to obtain a sequence of characters, called a hash key, which represents the digital signature of that object. A hash key is unique and can only be reproduced if all the original components from which it was obtained are known.

The next solution is a PoC (Proof of Concept), being a simplified implementation of a blockchain made in Java, using the Lombok library to remove the _boilerplate code. For simplicity, the basic structure of a block can only consist of an index, a time signature, data content and the two hash keys (www.hyperledger.org).

To obtain the hash key of an object, it is necessary to transform the object using the SHA-256 encryption algorithm. The java.security package provides the classes needed to obtain it (www.hyperledger.org) :

```
private String getHashFromString(String decodedHash) throws NoSuchAlgorithmException {
   MessageDigest digest = MessageDigest.getInstance(SHA-256);
   byte[] hash = digest.digest((decodedHash).getBytes(StandardCharsets.UTF_8));
   return Base64.getEncoder().encodeToString(hash);
}
```

The fields used are:

```
//Verssion
   private int index;
```

```
//Time signature
private LocalDate timestamp;

// The hash key of the current block
@NonFinal private String hash;

//The hash key of the previous block
private String previousHash;

// The meter
@NonFinal private int nonce = 0;

// Transactions
private T data;

//Dificulty
private int difficulty;

// Mining time
@NonFinal private Duration miningTime;
```

And the key calculation function for a block is as follows:

```
public String calculateHash() throws NoSuchAlgorithmException {
    String decodedHash = String.valueOf(index) + this.timestamp + this.data + this.previousHash
+ this.nonce;
    return getHashFromString(decodedHash);
}
```

In order for each participant to be able to get in touch with the distributed data, the concept of mining was introduced. It is necessary to limit the number of block generations over a period of time as inconsistencies may occur. Also a very short generation time can help compromise a chain. As for Bitcoin, mining is used to generate new currencies, but the main purpose remains to provide consistency to the data. At a simplified level the following code is the equivalent of a more complex mining process. A difficulty level is set that aims to generate a number of 0s at the beginning of the hash key. This generation requires a long processing time. Different levels of difficulty can be used for testing. A transaction can be represented by a similar class containing details about the recipient, sender, the value of the transaction and an attached message (one can see the similarity with what a bank transfer means) (www.hyperledger.org).

4. Survey of the specific evolutions regarding the application of information technologies in the record of transactions in Romania

In short, each block represents a data entry written and dated by a unique, reliable and impartial entity representing a registry. Each piece of information in the block along with the information in the previous block represents components of the digital key. This creates a chain of trust, as every change can be verified, validated and impossible to compromise. Thus the concept of immutability is introduced. In the event of an attempt to compromise or alter the data, the system detects inconsistencies and performs a restore to the latest valid version known and owned by a network entity (www.hyperledger.org).

In order for each participant to have access to the data, they must be mined for a certain period of time. This mining is very expensive in terms of hardware resources. For example, the total computing power used to mine Bitcoin cryptocurrencies has exceeded up to 100 times the total computing power of the giant Google (www.hyperledger.org).

Each participant has access to this blockchain, but each block in the blockchain can in turn represent another blockchain, so there is communication between different areas and domains. The transactions made are transparent, questionable and incorruptible. Blockchain data can even

represent personal data, reaching a virtual identity that we can fully control and choose what data we distribute (www.hyperledger.org).

In Russia, the possibility of switching to a voting system is being investigated, politicians can be monitored by citizens and pay can be eliminated if systems using this technology are implemented. Every company that implements this concept becomes a reliable company.

Each company will have competition from a blockchain version of its own company. So the main 5 advantages that blockchain technology offers are (www.hyperledger.org) :

1. Protection of rights
2. Creating a distributed economy
3. Elimination of taxes
4. Data protection and control
5. Compensation for producers

Applications based on blockchain technology have been used in the first phase in the financial industry, data protection, IT, health and energy. Currently, the number of companies in different sectors using this technology is growing rapidly. This technology is increasingly used by carriers and logistics operators (www.hyperledger.org).

Blockchain technology can change the way companies operate, especially those that currently face a lack of transparency in the supply chain (www.hyperledger.org).

When it comes to an extended network, and we face such situations very often, it can be a real challenge to get a complete picture of the transactions made by suppliers, subcontractors and customers. The end user may therefore have a problem in following the path of the individual elements that make up the end product. Given the growing competition and advancement of technical products, a new technology is often needed. In the field of transport and logistics, industry standards for the use of blockchain technology have not yet been set (Transport Alliance specialists are working on this), but this does not mean that nothing is happening. FedEx Corporation, an American shipping company, is testing a large and valuable cargo tracking technology based on blockchain technology. This technology has a major impact on the supply chain, transport and logistics. This is a new frontier that will completely change global supply chains (www.hyperledger.org).

The idea was to provide shippers with a convenient solution for completing VGM (Verified Gross Mass) declarations, which are required for shipping as a result of the International Convention on Safety at Sea (SOLAS). Today, with the help of blockchain technology, Kuehne + Nagel serves approximately 800,000 monthly transactions, the VGM portal being constantly updated. All information entered by the portal is stored in bulk, which allows the use of internal blockchain interfaces to exchange data with third parties, so that there is no need to use additional communication channels. The list of promises related to the use of blockchain technology in the logistics sector is long, but its practical use is rare. The VGM portal, a solution designed by shipping specialists, allows us to gain sufficient practical experience in using blockchain technology in many transactions in the internal production environment. The technology benefits customers, providing a secure solution for the exchange of information with third parties, with increased efficiency and greater transparency (www.hyperledger.org).

According to market estimates, the costs associated with managing and archiving documentation account for one-fifth of the $ 1.8 billion spent annually on international freight. In the case of Maersk, they argue that the use of blockchain technology can not only facilitate, for example, the location of a particular container, but can also show the status of customs and transport documents. The technology can also be used by customs and border authorities, providing the information needed to carry out risk analysis. It thus helps to increase safety and increases the efficiency of customs clearance and customs controls (www.hyperledger.org).

5. A case study of the accounting records of real estate transactions

On January 1, 2019, an entity purchases a building whose acquisition cost is 12,000,000 m.u. (monetary units). The building has a useful life of 30 years and will be used for rent to third parties, thus being classified in the category of real estate investments. (Nicolae, 2010).

In accordance with its accounting policies, at the end of each reporting period the entity performs tests to determine whether there are any indications of impairment of the building. As of December 31, 2019, the entity finds that an impairment has occurred and the value of the impairment adjustment is 1,300,000 m.u.

As of December 31, 2020, the entity notes a reduction in the adjustment for impairment by 600,000 m.u.

On December 31, 2021, the entity decides to sell the building at the price of 18,000,000 m.u.

The recording accounts used (as proposed in the IFRS accounting plan) for the exemplification of these accounting records were selected based on the formulated assumptions (Nicolae, 2010).

Accounting data

(Making entries by the author)

1. Recognition of purchase:

Debit *Real estate investments recorded at cost* 12,000,000
Credit *Suppliers of fixed assets - real estate investments* 12,000,000

2. As of December 31, 2019, the entity registers the depreciation related to the period January 1 - December 31, 2019 = 12,000,000 m.u. / 30 years = 400,000 m.u.

Debit *Operating expenses related to depreciation of fixed assets, real estate investments and biological assets valued at cost* 400,000
Credit *Depreciation of real estate investments valued at cost* 400,000

3. Recognition of Depreciation of the building on December 31, 2019:

Debit *Operating expenses on adjustments for impairment of fixed assets, real estate investments and biological assets valued at cost* 1,300,000
Credit *Adjustments for depreciation of constructions* 1,300,000

4. Recognition of the amortization of the real estate investment related to the period January 1 - December 31, 2020

Annual depreciation = 10,300,000 m.u. / 29 years = 355,172 m.u.

Debit *Operating expenses related to depreciation of fixed assets, real estate investments and biological assets valued at cost* 355,172
Credit *Depreciation of real estate investments valued at cost* 355,172

5. Recording the partial resumption of the previously recognized impairment adjustment on December 31, 2020 :

Debit *Adjustments for depreciation of constructions* 600,000
Credit *Income from adjustments for impairment of fixed assets, real estate investments and biological assets valued at cost* 600,000

6. Recognition of the amortization of the real estate investment related to the period January 1 - December 31, 2021:

Annual depreciation = 10,544,828 m.u. / 28 years = 376,601 m.u

Debit *Operating expenses related to depreciation of fixed assets, real estate investments and biological assets valued at cost* 376,601

Credit *Depreciation of real estate investments valued at cost* 376,601

7. Registration of the sale operation:

Debit *Various debtors* 18,000,000
Credit *Income from the sale of real estate investments* 18,000,000

8. Recognition of asset disposal:

Debit *Depreciation of real estate investments valued at cost* 1,131,773
Debit *Adjustments for depreciation of constructions* 700,000
Debit *Expenses with the sale of real estate investments* 10.168.227
Credit *Real estate investments recorded at cost* 12,000,000

9. The financial result generated by the sale of the real estate investment :

Profit = 18,000,000 - 10.168.227 = 7,831,773 m.u

When implemented in practice, entities may also consider other accounting records alternatives as long as there is a fair presentation of the results in profit or loss statement or/ and in the statement of financial position.

6. Conclusions

In my opinion, the expansion of the use of blockchain technology by various companies ensures a positive trend in terms of the flexibility of accounting information.

In the context of other phenomena registered by the applicability of IT tools in accounting, including artificial intelligence applications, the blockchain will generate a new dynamic / transactional accounting system, made by autonomous applications, independently / automatically. In this new context, well-trained professional accountants will be the ones who interpret the data on the recorded values, making a real economic interpretation of blockchain records, thus combining the written record, electronically, with the reality and fair, economic values. As an illustrative example, blockchain IT applications can signal the existence of a customer for whom there are real guarantees, but the recoverable amount and the economic value are still debatable. Ownership of an asset could also be verified through blockchain records, but the physical condition of the asset, its geographical location and the fair market value of that asset will need to be verified on the spot by professional accountants with the required training and experience of the real context.

The certainty of eliminating reconciliations between bank account balances and entity records, eliminating reconciliations between suppliers 'and customers' balances, confirming certainty in the regularity of the accounting transaction history, allows the blockchain to increase the scope of accounting as well. Thus, there are currently several areas that are considered too difficult or uncertain to measure, such as the amount of information an entity has.

In the current context, of an economic, financial, social environment marked by major elements of unpredictability, the use of blockchain technology in the processing of accounting information on real estate transactions is a factor of economic stimulation.

The transformation of the financial and banking system by including blockchain distributed base network systems presents many opportunities, but also challenges, for professional accountants with an appropriate level of training in new technologies. Be aware! We do not consider here the skills only in the field of social networks, but we see the need for real skills in handling information technology tools, on a solid background of knowledge in accounting and taxation. Professional accountants are seen as top level specialists in accounting, applying complex rules of analysis and evaluation, using logical mechanisms in business, implementing the requirements of financial reporting standards, standards to which they have contributed. Professional accountants have the opportunity to lead and contribute to the technical ways in which the blockchain system is implemented and used in the future, developing blockchain-based solutions, tools and services.

The process of inserting Blockchain systems into the current financial and credit system requires, in a sustainable way, that the blockchain be developed as a set of software applications, being at the same time standardized and optimized. The process of gradually introducing the blockchain will take many years, it is twelve years since Bitcoin appeared on the market and there are many issues that need to be resolved. We can find many blockchain applications and start-ups in this field, but there are very few that have exceeded the study stage - concept or pilot study stage with low applicability. Professional accountants already have major involvement in blockchain research, but the accounting profession, through its bodies, is not yet a major player in the widespread implementation of the blockchain. We consider it necessary to put in the debate of accounting professionals some draft regulations and standards for the development of blockchain applications in accounting, auditing, taxation, business evaluation.

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Fiscal - Budgetary Policy and Fiscal Administration in Romania in the Period 2020-2023

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Abstract

The paper is based on a report from the budget for the period 2020-2023 which was prepared based on art. 35 paragraph (2) of Law 500/2002 on public finances, with subsequent changes and additions and is based on the deductions of the Fiscal-Budgetary Strategy for the period 2020-2022 and the provisions of the medium-term macroeconomic framework 2018-2023 (autumn 2019 provision).

In this paper we presented the main developments of the macroeconomic framework in the reference period in the context of the international framework, the main goals and strategic priorities that Romania has to meet by 2023, and the changes that will be made for the budget deficit policy. to directly help economic development.

Key words: public finances, state budget, fiscal-budgetary policy, budget deficit
J.E.L. classification: H6, H61, H62

1. Introduction

The most important characteristics of the budget construction for 2020 and the horizon 2021-2023, which will support Romania's effort for a resilient economy, to face the challenges of the future are:

- The draft budget is outlined on an economic framework with an economic increase of 4.1% assumed for 2020 and an average annual rate of 4.1% for the entire period 2021-2023, much higher compared to the one calculated to be recorded in EU countries (1.2% in the euro area and 1.4% of the EU as a whole, estimated for 2020, according to the EU autumn forecast). In the circumstances of a difficult international framework, Romania has a conception of fiscal and budgetary policies that amplify and keep the economic increase constant, being aware that it must use all its powers to stabilize the economic resistance.
- Investments are the engine of economic growth and job creation, with multiplier fruit and direct contribution to gross fixed capital formation. For 2020, investments are valued at 4.5% of GDP, higher by 6.1 billion lei than in 2019.
- At the same time, the budget considered reducing budget deficits over the reference horizon. The cash budget deficit target for 2020 is estimated at 3.59% of GDP, and the loss of ESA at 3.58% of GDP, continuing to reach 1.94% of GDP in 2023, thus falling within conditions of European regulations.

The measures underpinning the budget construction for 2020 and the 2021-2023 outlook, as well as the downward change in the medium-term budget deficit, signal the clear trend of phasing out pro-cyclical fiscal policy, with 2020 being the first step towards a return to the goal. budget deficit below 3% of GDP provided for in the Maastricht Treaty.

According to the coordinates of the budget construction for 2019 and the horizon 2019-2022, the basic criteria of this draft budget also result: realism, avoiding the waste of public money, transparency, performance, efficiency.

In the future, Romania has a number of determinations: strengthening multiannual programming, keeping public debt within acceptable limits, sound public budget, committed to supporting useful structural reforms, sufficient fiscal room for maneuver in case of economic difficulties and / or contamination , the efficiency of public policies that must be expressed in the performance of the business environment, entrepreneurship, and the agility of the workforce, goods and services, improving collection, but also increasing the absorption potential of European funds, stimulating a correct attitude on increasing wages based on increasing labor productivity, goals that once achieved, can lead us to the hope of keeping Romania in the top of EU economies and thus raising the living standards of members of society.

Throughout its development, Romania must send a message of trust and responsibility, for joining the Eurozone to become a reality, to prove an authoritarian political vision for the European project, for all Member States to work for a prosperous and firm Union .

2. Literature review

The notion of public budget is a basic component of the science of finance, and can be analyzed from a legal point of view, but also from an economic point of view. Thus, from a legal point of view, the public budget represents the document through which public revenues and expenditures are provided and approved every year. The budget provides for financial resources for a certain period of time, as well as how to use them. As it is a document that must be approved by the Parliament for each budgetary indicator, being constituted for a period of 1 year, it can be stated that the state budget is mandatory (Carmen C., 1998).

In Romania, the notion of national public budget was introduced in 1991, by the Romanian Constitution and by the law of public finances of that year, which included the state budget, the state social insurance budget and the local budgets.

Analyzed from an economic point of view, the public budget highlights the existing macroeconomic correlations between the level of public revenues and expenditures and the evolution of gross domestic product, as well as the role of economic policy instrument it plays (Beck M., Rațiu M.A., 2013). The budget represents a financial plan at macroeconomic level through which revenues and expenditures are forecast both in the short term, at the level of one year, and in the medium term with the help of program budgets, especially for public investments. The state budget expresses the economic relations in monetary form that arise in the process of distribution of the gross domestic product, in accordance with the objectives of economic, social and other policy of each period.

In countries such as France, the concept of national economy budget or economic budget in England or the USA is used. This is considered an estimated document that includes forecasts on the activity of economic agents in the country, as well as forecasts on the formation and use of public budget sources, both for the current year and next (Macovescu A., Christmas A ., Tudor G., 2017).

In our country, the state budget is the main component of the budgetary system, in which are concentrated most of the financial resources needed to finance the main socio-cultural, economic, national defense, maintenance of central state bodies (Beck M., Gherghina S., 2013). The state budget is formed on the basis of the financial plans of the ministries and central institutions through which the respective actions are carried out, as well as the expenditure plans generated by the central bodies of the state administration, the financial plans regarding the functioning of courts, prosecutor's offices and national defense. The state budget also includes the budget of the Senate and the budget of the Chamber of Deputies, etc.

The national public budget is the main financial instrument of the state - the financial balance at macroeconomic level - which serves to size the financial resources of the state, to establish their destinations and to substantiate the financial balance, over a period of time, usually for one year.

The explanatory dictionary of the Romanian language defines the budget as "a balance of the incomes and expenses of a state, of an enterprise for a determined period". Specialists in the field have formulated several definitions of the budget, as follows:

- the budget is a financial plan that includes the public revenues and expenditures of the state over a certain period of time;
- the budget is a forecast of revenue and expenditure for a given period, an evaluation and comparative table of revenue to be met and expenditure to be incurred;
- the state budget is considered as an act containing the prior approval of public revenues and expenditures;
- the budget is the act by which the annual revenues and expenditures of the state are provided and authorized;
- the set of accounts that describe for a calendar year all the resources and all the expenses of the state.

Being the most important mechanism through which the functions of public finances are transposed in life, the state budget is the closest instrument of state intervention in the economy, through its budgetary and fiscal policies (Beck M., Gherghina S., 2013).

3. Research methodology

The development of the national economy, the increase of the gross national product, the increase of the labor productivity, the decrease of the production costs and the improvement of the quality of the products determined the annual increase of the revenues of the state budget.

The state budget manifests its role through the following functions: the function of mobilization, distribution and use (distribution) of money resources; control function..

Regarding this paper, we can say that the way in which this paper is structured shows the main evolutions of the macroeconomic framework in the reference period in the context of the international framework, the main goals and strategic priorities that Romania has to meet by 2023, as well as the changes that will be made for the budget deficit policy to directly help economic development.

The paper analyzes the results obtained in the case of Romania, highlighting the macroeconomic and budgetary evolutions and trends for the period 2019-2023. In this paper were processed the series of statistical data taken from the State Budgets on the website of the Ministry of Finance, as well as data provided by the National Institute of Statistics.

The research method used is a descriptive, comparative one that analyzes: the fiscal administration policy with the strategic objectives of ANAF in the short and medium term, the reduction of tax evasion and fraud and the improvement of relations with taxpayers.

4. Budget projections for the period 2021-2023

After a period of pro-cyclical fiscal easing, during which the budget deficit widened due to the rapid growth of budget expenditures that could not be supported by a similar evolution of revenues, the year 2020 notes the reversal of the trend towards this deficit trend.

In structural terms, there is a deviation from the Medium Term Budget Objective (in English, abbreviated: MTO) determined for Romania, but at the end of the planning horizon an adjustment of the structural balance of over 1.5pp compared to 2020 is guaranteed.

However, the deviation from the MTO occurs with the maintenance, on the whole planning horizon, of a sustainable level of public debt below 40% of GDP, the final objective of the European rules on the budget deficit being thus assured.

Tabel no. 1 - Revenue, Expenditure and Balance of the general consolidated budget (% of GDP)

	2020 Estimation	2021 Estimation	2022 Estimation	2023 Estimation
CASH INCOME	31,9	31,7	32,2	32,2
EXPENSES cash	35,5	35,0	34,8	34,0
The cash balance	-3,59	-3,34	-2,53	-1,76
ESD methodology salary	-3,58	-3,44	-2,77	-1,94
The structural balance	-3,39	-3,24	-2,62	-1,85

Source: Data processed from the 2020 budget report

Budget revenues

The calculation of the evolution of the revenues collected from the main categories of taxes and fees for the period 2020-2023 is based on the most up-to-date projection of the macroeconomic indicators described in the Autumn 2019 Forecast of the CNSP, the estimated revenues for the year and the estimated revenues.

Total budget revenues increased in importance in GDP from 29.4% in 2017 to 31.4% of GDP in 2019. This development was mainly determined by the decrease in the share of fiscal revenues that maintained the declining trend (-1.3 pp) but which was offset by the increase in the share of social contributions (+2.4 pp), non-tax revenues (+0.3 pp) and amounts received from the EU (+0, 6 pp). In the medium term, revenues are projected to grow slowly to 31.9% of GDP in 2020 and 32.2% in 2022-23, further supported by the rise in the share of GDP in social contributions.

In the case of tax revenues, income tax revenues are estimated at an unchanged level of 1.7% of GDP over the entire forecast horizon corresponding to the evolution of the relevant macroeconomic base (nominal GDP growth), a level recorded in previous years as well. In the income tax collection in 2019 from the profit tax, a slightly accelerated dynamic of the component owed by the banking institutions can be taken into account and a continuation of this evolution is foreseen in the year 2020. At the same time, the non-profit sector tax recorded a slower transformation in 2019, although nominal GDP is projected to increase by 10.2%. In the medium term, the flexibility of income tax revenues relative to the dynamics of nominal GDP growth is maintained at an average of 1.

The importance of income tax receipts in GDP decreased uniformly from 3.5% in 2017 to 2.4% in 2018 and 2.2% in 2019 reflecting the impact of resetting the structure of taxation of salaries by sending contributions from employer, employee and tax rate reduction from 16% to 10%. Income tax revenues are projected to increase from 2.3% of GDP in 2020 to 2.6% of GDP in 2023, the evolution of which expresses the predicted dynamics of the wage fund in the economy and the valuable increase in pension income. According to the Autumn 2019 Forecast, the growth rate of average gross earnings in 2020 is estimated at 9.8% and then, to slow the grade to 7.0% in 2023, and the average number of employees will increase sharply approximately constant of 2% in the period 2020-2023.

VAT revenues have remained in recent years at a share of about 6.3% of GDP, reflecting the dynamics of final consumption of households, adapted to the components of self-consumption and non-profit institutions in the service of households. VAT revenues are estimated at 6.4% of GDP in 2020, representing a share similar to that forecast for 2019. For the next year, the calculations indicate a marginal increase of 6.5% of GDP mainly due to the introduction of improvement measures. VAT collection valued at 1.8 billion lei in the period 2020-2021. In the medium term, VAT revenues are projected to remain at 6.4% of GDP until 2023, reflecting the slowdown in the growth rate projected for household consumption.

Excise revenues represent a constant share of 3.0% of GDP in 2018 and 2019 and this level is expected to be maintained in the medium term, mainly reflecting slightly declining dynamics of real population consumption and inflation (average annual inflation). will be reduced from 3.1% in

2020 to 2.6% in 2023). The forecasts of the excise revenues include the increase of the stage of the total excise duty for cigarettes starting with the year 2020 for the correction of the inconsistency with the provisions of art. 10 para. (2) of Directive 2011/64 / EU.

Revenues from taxes on the use of goods, authorization of the use of goods or on the conduct of activities are estimated to increase by 0.1% of GDP in 2019 (0.3% of GDP adjusted by refunds of the car tax of 2.3 million lei) 0.6% in 2020, mainly due to the inclusion in the estimates and the validation of 5G licenses. In the medium term, these revenues remain at 0.4% of GDP. Estimated revenues from foreign trade tax and international transactions will remain at 0.1% of GDP over the entire forecast period, a level similar to that of previous years. The same evolution is estimated for the category of other taxes and fiscal fees.

Non-tax revenues are projected to decline from 2.9% of GDP in 2018 to 2.8% of GDP in 2019 (including additional dividends from state-owned companies). In 2020, non-tax revenues are projected at 2.5% of GDP and on a slightly declining trajectory to 2.3% of GDP in 2023. Receipts from social security contributions have increased significantly from 8.4% of GDP in 2017 to 10.8% of GDP in 2019, mainly reflecting the shift of contributions from the employer's attribution to the employee's attribution and significant dynamics of the wage fund in the economy. Contribution revenues are estimated at 11.0% of GDP in 2020, and in the medium term the growth trend will slow to 11.5% of GDP in 2023, reflecting the deceleration of projected increases in average wages. The assessments were made taking into account the legislative provisions in force, together with maintaining the transfer rate to Pillar II of pensions at 3.75% over the entire forecast horizon.

The amounts received from the EU on account of payments are estimated at 2.6% of GDP in 2020, and will progress towards the end of the multiannual European budget year at 2.9% of GDP in 2022.

Tabel no. 2 - Revenues of the general consolidated budget - by types of income -

-% of GDP-

	2019	**2020**	**2021**	**2022**	**2023**
Total, of which:	**31,4**	**31,9**	**31,7**	**32,2**	**32,2**
Tax	1,7	1,7	1,7	1,7	1,7
Income tax	2,2	2,3	2,5	2,5	2,6
Property taxes and fees	0,6	0,6	0,6	0,6	0,6
Value added tax	6,4	6,4	6,5	6,4	6,4
Excise	3,0	3,0	3,0	3,0	3,0
Foreign trade tax	0,1	0,1	0,1	0,1	0,1
Other tax revenues	1,1	1,5	1,2	1,2	1,2
Social security contributions	10,8	11,0	11,1	11,3	11,5
Non-taxable income	2,8	2,5	2,5	2,4	2,3
Capital income	0,1	0,1	0,1	0,1	0,1
Donations	0,0	0,0	0,0	0,0	0,0
Amounts from the EU on account of payments made	2,6	2,6	2,4	2,9	2,7

Source: Data processed from the 2020 budget report

Budget expenditures

If by 2019 inclusive, total budget expenditures have significantly increased their share of GDP, starting with 2020 a correction of this trend will be made to help the goal of adjusting the budget shortfall.

Although in nominal terms the total expenditures increase in the medium term, compared to GDP there is a decrease of 1.5 pp compared to the level of 2020 due to the maintenance of their nominal dynamics below the GDP dynamics.

And in the structure, the majority of expenditure groups show the same downward trend as a share in GDP compared to the level of 2020. In the situation of social assistance expenditures, after the increase registered in 2021, this is on the downward trend. planning around the level of 11, 9% of GDP.

Tabel no. 3 - Expenditures of the consolidated general budget - by economic classification -

-% of GDP-

	2020	2021	2022	2023
Total, of which:	**35,5**	**35,0**	**34,8**	**34,0**
Personnel expenses	9,7	9,4	9,2	8,9
Goods and services	4,5	4,2	4,0	3,9
Interest	1,2	1,2	1,2	1,1
Grants	0,6	0,6	0,6	0,5
Social assistance	11,6	12,2	12,0	11,9
Other transfers	3,3	3,3	3,7	3,5
Investment expenses	4,5	4,0	4,1	4,1

Source: Data processed from the 2020 budget report

5. Romania's contribution to the EU budget, its financing and its net financial position

Romania's contribution to the EU budget

According to the commitments assumed by the Treaty of Accession of the Republic of Bulgaria and Romania to the European Union ratified by Law no. 157/2005, Romania, as a member state, takes part in the financing of the European Union budget corresponding to the unitary EU rules which are directly applicable from the date of accession. Thus, starting with January 1, 2007, Romania covers the payment of its contribution for the financing of the European Union budget within the system of own resources of the EU budget.

Tabel no. 4 - Romania's contribution to the European Union budget for 2020 and the estimate for 2021-2023

- thousand euros -

Name	Execution 2019	2020	2021	2022	2023
Contributions from customs duties	935.799,8	978.500,0	978.500,0	978.500,0	978.500,0
Contributions from the sugar sector	0,0	0,0	0,0	0,0	0,0
All contributions from own resources traditional	**935.799,8**	**978.500,0**	**978.500,0**	**978.500,0**	**978.500,0**
Contributions from the VAT resource	1.163.183,5	1.147.001,0	1.147.001,0	1.147.001,0	1.147.001,0
Contributions for correction / discount	529.808,6	570.109,1	570.109,1	570.109,1	570.109,1

granted to Great Britain					
GNI resource contributions	6.765.059,3	6.673.365,7	6.504.557,7	7.004.557,7	7.004.557,7
Contributions for reductions in favor Denmark, Austria, Countries Netherlands and Sweden	69.870,0	72.038,1	72.038,1	72.038,1	72.038,1
All contributions from own resources	**9.463.721,2**	**9.441.014,0**	**9.272.206,0**	**9.772.206,0**	**9.772.206,0**
Additional contributions and unforeseen	28.652,3	248.900,0	248.900,0	248.900,0	248.900,0
Romania's contribution to the EU budget	**9.492.373,5**	**9.689.914,0**	**9.521.106,0**	**10.021.106,0**	**10.021.106,0**

Source: Data processed from the 2020 budget report

These amounts are subject to change, therefore, on the one hand, according to EU procedures, automatic technical adjustments will be made to the indicators decided at the ACOR-Forecasts meeting, at the time of the production of the new macroeconomic indicators estimated by the European Commission, The degree of contribution of all Member States, and therefore also of Romania, will change depending on the negotiations at EU level in relation to the total volume of the European Union budget.

- BREXIT - plugging the gap left behind by the UK's withdrawal from the EU (equal to the UK's contribution to the EU budget or other amount, depending on the outcome of the March 2019 agreement);
- The Multiannual Financial Framework 2021-2027 - still in the process of negotiation, expecting its completion in 2020. The agencies that influence the amount of RO contribution to the EU budget are:
    - New own resources - will give rise to changes in the share of the RO contribution to the EU budget in the total own resources;
    - Increasing the financing ceiling of the EU budget through the own resources system;
    - Other influences from the Internal and International Market.

Estimation of Romania's contribution to the European Development Fund for the period 2020 - 2023

According to Law no. 16/2008, Romania acceded to the Agreement signed in Luxembourg on June 25, 2005, amending the Partnership Agreement between the members of the African, Caribbean and Pacific Group of States, of the one part, and the other Member States, of the European Community , signed in Cotonou on 23 June 2000. In this context, since 2011, Romania has been contributing to the 10th and 11th European Development Funds (EDF 10 and EDF 11).

The table below shows the evaluation of Romania's contribution to the EDF for the period 2020-2023:

Tabel no. 5 - Romania's contribution to the European Development Fund for 2020 and the estimate for 2021-2023

- thousand euros -

Name	Execution 2019	2020	2021	2022	2023
Romania 's contribution to the European Development Fund	154.484,1	160.823,0	135.291,0	102.336,0	71.636,0
Current transfers abroad (to organizations international)	154.484,1	160.823,0	135.291,0	102.336,0	71.636,0

Source: Data processed from the 2020 budget report

These amounts may change depending on the decisions taken at EU level, in connection with the need for funds for payments to ACP states.

6. Conclusions

After a period of pro-cyclical fiscal easing, during which the budget deficit widened due to the rapid growth of budget expenditures that could not be supported by a similar evolution of revenues, the year 2020 notes the reversal of this deficit trend.

Total budget revenues increased in importance in GDP from 29.4% in 2017 to projected at 31.4% of GDP in 2019. In the medium term, revenues are expected to grow slowly to 31.9%. of GDP in 2020 and 32.2% in 2022-23, further supported by the rise in the share of GDP in social contributions.

In the case of tax revenues, income tax revenues are estimated at an unchanged level of 1.7% of GDP over the entire forecast horizon corresponding to the evolution of the relevant macroeconomic base.

VAT revenues have remained in recent years at a share of about 6.3% of GDP, reflecting the dynamics of final consumption of households, adapted to the components of self-consumption and non-profit institutions in the service of households. VAT revenues are estimated at 6.4% of GDP in 2020, representing a share similar to that forecast for 2019.

Excise revenues represent a constant share of 3.0% of GDP in 2018 and 2019 and it is expected that this level will be maintained in the medium term, mainly reflecting slightly declining dynamics of real population consumption and inflation.

Revenues from taxes on the use of goods, the authorization of the use of goods or the carrying out of activities are estimated to increase from 0.1% of GDP in 2019 to 0.6% in 2020, mainly as a result of the inclusion in the valuation estimates.

Non-tax revenues are projected to decline from 2.9% of GDP in 2018 to 2.8% of GDP in 2019 (including additional dividends from state-owned companies). In 2020, non-tax revenues are projected at 2.5% of GDP and on a slightly declining trajectory to 2.3% of GDP in 2023.

The amounts received from the EU on account of payments are estimated at 2.6% of GDP in 2020, and will progress towards the end of the multiannual European budget year at 2.9% of GDP in 2022.

From the coordinates of the budget construction for 2019 and the period 2019-2022, derive the basic ideas of this draft budget: realism, efficiency, transparency, avoiding waste of public money, performance.

Throughout its development, Romania must send a message of trust and responsibility, for joining the Eurozone to become a reality, to prove an authoritarian political vision for the European project, for all Member States to work for a prosperous and firm Union .

By meeting the following challenges (strengthening multiannual programming, keeping public debt within acceptable limits, sound public budget, committed and supporting useful structural reforms, sufficient fiscal room for maneuver in case of own economic difficulties and / or through

contamination, efficiency of public policies that must be expressed in the performance of the business environment, entrepreneurship, and the agility of the workforce, goods and services, improving collection, but also increasing the absorption potential of European funds, stimulating a correct attitude to increase wages based on increasing labor productivity) which once achieved, can lead us to the hope of keeping Romania in the top of EU economies and thus raising the standard of living of members of society.

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Related Parties' Transactions: A Literature Overview on Auditor's Risk

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Abstract

The aim of this paper is to examine the nature of related party transactions, how they are reflected in the context of a financial audit and the challenges of resolving risk management issues, detecting fraud and the effects of coordinating these transactions by company management between two or more affiliated companies. To achieve the objective, the research methodology is qualitative and is based on the selection of a sample of relevant articles from journals indexed in the international database in which the risks identified in transactions with related parties were highlighted. The research results show the main risks identified were fraud risk, risk of misstatements and the company value manipulation risk. In conclusion, it can be stated that there are additional factors in the audit of related party transactions that the auditor must take into account so that there is no impact on the correctness and accuracy of the results of the final audit report.

Key words: transactions, related parties, auditor, risk, transfer pricing
J.E.L. classification: M42, M48, K34, F23

1. Introduction

With the increasing number of multinationals companies (MNC), the number of related party transactions also increased, enabling groups of companies to move profits in jurisdictions which are more relaxed in terms of taxation. This situation poses a high risk to the governments of all countries, as their tax revenues could be reduced. With this in mind, more and more countries are adopting and expanding their transfer pricing legislation to prevent the erosion of the tax base and the shift of profits between multinational companies.

In Romania, in accordance with the provisions of the Fiscal Code, transactions between affiliated persons are important to respect the principle of the free market. Adherence to the principle of arm length is, according to transfer pricing legislation, the essential decision-maker regarding pricing. The Fiscal Code doesn't differentiate between transactions performed between an affiliate Romanian company and transactions between a resident affiliate and a non-resident affiliate company.

The auditor must identify and evaluate the risks of significant misstatement associated with relationships and transactions with related parties and determine if any of those risks are significant. When the auditor establishes this, he must consider the significant transactions with the affiliate party which is outside the legal regulations as the source of significant risks.

Most international transactions are conducted by and within the concern. Transfer prices have benefited from increasing interest in recent years because: i) It is allowed to move certain service activities to centers that combine all members of the international company that are located in a certain geographical area; ii) International commercial activities can be carried out without interruption due to the development of electronic commerce allowed by the new IT techniques. Specific intra-group reporting requirements have been established at the level of the framework regulations for (in this case) financial reporting and where there are no such requirements the auditor is responsible for performing specific procedures with the purpose of discovering, analyzing and responding to misstatement risks, as a consequence of the failure of the entity in adequately presenting the intra-group relations and/or operations.

The objective of the paper is to synthesize theoretical information on auditors' risks related to related party transactions and to identify the main risks studied by other researchers in the last five years. To achieve the objective of the paper, the research methodology is qualitative and is based on the selection of a sample of relevant articles from journals indexed in international databases.

The paper contributes to the literature by reviewing previous research on the risks identified in related party transactions, as well as determining their impact on the performance of companies. The practical implications of the paper are addressed on the one hand to investors who could determine whether transactions with related parties are beneficial to their companies and what categories of risks they must assume by choosing one branch of activity or another. On the other hand, regulators may consider additional disclosure requirements regarding the characteristics of the business in order for those related parties to improve their understanding of the nature, risks and liabilities behind the disclosed related party transactions.

The paper contains a review of the main concepts and relevant literature in the related party transactions area; the research methodology has been focused at studying the most relevant scientific articles on this topic and their findings. The major associated risks were identified and indicated in the present study and the conclusions are presented in the last part of the document.

2. Literature review

Anghelache (2017) considers that among the users of financial statements, those who prepare them and consultants, there is a growing opinion that risk reporting needs to be further optimized; the more accurate the risk reporting, the better the administrative direction. What needs to be determined is the balance between what investors and users would like to see, and what organizations want to disclose. In particular, organizations are inflexible in revealing any aspect that could affect their position vis-à-vis competition or in detailing the risks they anticipate, to the extent that this would bring panic to those concerned, in particular for financiers. Unfortunately, the result is usually a cliché report, which presents only generic risks and does not bring any real benefit.

As indicated by Jorgensen and Morley (2017), the impact of transactions with related parties may vary depending on the country, with different degrees of capital market development, regulatory environment and characteristics of company ownership, etc. In this respect, the arguments of related party transactions based on transaction costs are probably more applicable to the Eastern European market than to markets in developed countries with mature stock markets.

Lately, both in terms of regulating financial audit activities and in terms of financial accounting, there is still a general emphasis on the confidence that users can have in the reports published by companies on financial statements. In this respect, the respective shareholders and other interested parties need accurate, complete and easily accessible information. This trust depends both on the accuracy and degree of involvement of those responsible for preparing those financial statements but also on the degree of independence and level of objectivity of the opinion of the financial auditors in the audit process. In this way, the responsibility for the correct, transparent presentation which is also adapted to the real economic situation of the information contained in the financial statements rests both with the management of the company that presents this information and with the financial auditors who express their opinion on them.

As a result, both at European and national level, the interest in highlighting the most transparent financial information presented leads to the need to have increasingly strict regulations regarding the reporting of transactions between the company and affiliates, the presentation of off-balance sheet commitments and the need to introduce a statement on corporate governance. Despite the fact that recent literature has begun to distinguish between the types of "good" and "bad" transactions, the relevant evidence is still quite diverse in terms of related party transactions. Aharony et al. (2010) consider that sales of related parties are driven by exploitation, while Habib et al. (2015) and Kohlbeck and Mayhew (2017) support the vision of more efficient contracting for sales or purchases between related parties. Wang et al. (2019) tried to identify a potential moderator, as an example of the similarity of the industry between the group's affiliates, which would determine that transactions with associated parties to be a "model of perfection"

The major risk involved in related party transactions is their manipulation in order to reduce the taxable mass and move them to countries with lower taxation or in countries where shareholders have special interests as well as their manipulation to influence the stock market that these companies are listed on. Kohlbeck and Mayhew (2017) consider that the uncontrolled nature of related party transactions facilitates wealth transfers between the firm and related parties, usually to the detriment of minority shareholders.

Internal market transactions between related parties could be particularly beneficial due to the low level of asymmetric information and therefore lower transaction costs. Jorgensen & Morley, (2017). For example, Habib et al. (2015) consider that sales / acquisitions between related parties, i.e. transactions with related parties, fulfill this perspective of efficient contracting of related parties transactions (RPT), thus leading to a decrease in audit fees. In contrast, loans to related parties result in the opposite conclusion, ie higher audit fees. Kohlbeck and Mayhew (2017) separate related party transactions into "tone-related" and "business-related" transactions and find that business (tonal) transactions are associated with a lower (higher) risk of misstatement while transactions "Tunnel-oriented", such as related party loans, are associated with negative consequences, there is still an open question about the impact of "normal" related party transactions, for example, sales / purchases between related parties, due to evidence mixed from the existing literature.

Transfer prices are a neutral phenomenon. Their use or abuse makes it a harmless commercial practice or a conscious offense. The transfer price is not an immoral or illegal act. It can only be for business reasons, without any intentional or unintentional effort to deceive the government or any party involved. Therefore, transfer pricing is generally conceived as an admissible practice, as are other administrative or commercial practices of commercial entities. Therefore, transfer pricing should be treated as a routine practice and not as a tax avoidance tool. Hence, naturally, the importance of accounting regulations under which corporations must provide in a note to the financial statements a summary of related party transactions to emphasize their transparency. Romanian researchers conducted studies on the disclosure of data on relations and transactions between related parties, in the case of companies listed on the Bucharest Stock Exchange (Corlaciu și Tiron-Tudor, 2013; Feleagă și Neacșu, 2016).

Căpățână-Verdeș (2019) hypothesized that disclosure of data in accordance with end-user specifications is the main target of any senior business management wishing to attract investment. Disclosure of related party and transaction data will need to increase end-user confidence in annual tax reports issued by a group of companies. The annual tax reports will contain incorrect data on the health and performance of the business, given the manipulations performed in the reported accounting data. Only the compliance of the data reported in the accounting records and the voluntary disclosure of the data will disclose the business condition of the affiliated entities as true or not. This will increase the transparency of transactions between affiliated and trusted entities in their operational reports.

The involvement of auditors, as is the case in several Member States of the European Union, and of the audit committee is imperative. Auditors must be independent and their duties already include control over related party transactions. Accordingly, the audit tasks may be extended to include reasonable assurance that the expected related party transactions are fair economic transactions. The Audit Committee may serve as the body that approves the transaction with related parties. The auditor may annually provide in his report the results of his assessment of the fairness of transactions with related parties. This procedure is less burdensome and can help mitigate the risks of transferring assets from related party transactions by eliminating the associated risks and taking responsibility.

3. Research methodology

The research methodology is qualitative and consists in synthesizing the relevant scientific papers that had as object of research the topic of transfer pricing and transactions with related parties and that addressed the effect of indicators on their impact on companies. The articles were selected from international databases and included studies conducted at international and national level. The chosen period was 2014-2020, and the selection criterion was according to the keywords: affiliated parties, transfer prices, risk, audit associated with the topic.

4. Findings

From the selection made, a large number of articles were identified, that addressed the topic studied but for greater clarity and accuracy 20 representative articles were analyzed, whose synthesis is grouped in Table 1. In this table for each paper the proposed objectives were selected, also research methodology, the samples on which the study is based, the most significant results and the risks that may be associated with the results of the studies. the articles are ordered in the table starting from the most recently published.

Table no 1: The results of the scientific papers analysis

Authors	Objective	Research methodology	Sample	Results	Risk
Bond &Thomas (2020)	Studies the economic effects of unilateral adoption of corporate tax policies that include the choice between destination-based and source-based taxation and between cash flow and income taxes.	Theoretic model	Two countries hypothetical model with two final goods.	Among other findings, the authors conclude that countries with sizable export markets will prefer income taxation to cash flow taxation and border adjustments are optimal under income taxation.	Fraud risk
Hendratama et al. (2020)	Investigates the influence of related party transactions (RPTs) on firm value.	Multiple regression analysis	274 observations from listed firms in Indonesia	Provides evidence that concerns regarding RPTs being value destroying and value enhancing are warranted	Company value manipulation risk
Ocak et al. (2020)	Examines the association between audit quality and individual auditors providing audit service to firms in the same business group.	Propensity score matching	Sampled Turkish Listed firms traded in Borsa Istanbul between 2010 and 2016	Individual auditors providing audit services to the firms affiliated with the same business group in Big4 audit firms tend to issue a modified audit opinion.	Risk of misstatements
Căpăţână-Verdeş (2019)	To verify how Romanian listed businesses are complying to regulations related to relationships and transactions among related parties.	Qualitative data analysis	Annual Tax Reports on 53 companies listed on Regulated Market in 2016	This study output shows that Romanian listed companies disclose 53% of data on related party transactions	Risk of non-disclosure of data in financial statements

Wang et al. (2019)	Investigates whether business relatedness, i.e., the degree of related diversification within a business	Econometric model	Final sample comprising 20,151 firm-year observations on companies in Taiwan during 1997–2016.	Transacting with a related party in the same industry does increase firm performance	Risk of misstatements
Kim et al. (2018)	Analyzes the trade-offs in the multinational firms optimal choice of supply chain structure.	Econometric model	Theoretical modeling of a multinationa l company optimal structure	The results suggest that tax considerations deserve attention from managers when designing the supply chain structure.	Fraud risk
Neacsu (2018)	Addressing the issue of transfer pricing from the perspective of the Romanian regulations	Questionnaires analysis	4486 questionnair es	It was concluded that at the level of the Romanian transfer pricing legislation, a reform is needed in multiple areas.	Fraud risk
Wier (2018)	Systematic evidence of profit shifting through transfer mispricing in a developing country.	Regression model	5.000.000 transactions for goods imports 2011-2015 in South Africa	Provides proof that transfer prices are manipulated according to the desired tax level.	Fraud risk
Al-Dhamari et al. (2017)	To date studies on the association between RPTs and audit fees	Regression models	120 listed firms in Malaysia	Evidence of tunneling risk created by related party transactions	Company value manipulation risk
Anghelache (2017)	The author's goal is to explain how the reladed party transaction's risks are divided among the investors, consultants and auditors.	Theoretical model	Personal views based on current practices regarding transfer pricing	The author concludes that the risk reports are usually presented in a stereotypical way which brings no real benefit to the intended recipients. A set of internal controls helps the management with identifying and evaluating risks.	Risk of misstatements
Bona-Sanchez et al. (2017)	Related-party transactions, dominant owners and firm value	Statistic model	94 Spanish companies, 671 firm-year observations for the period 2004-2012	Connected transactions between listed Spanish firms and their block holders account for 99.84% of the total RPTs carried out by listed Spanish firms.	Commercial risk

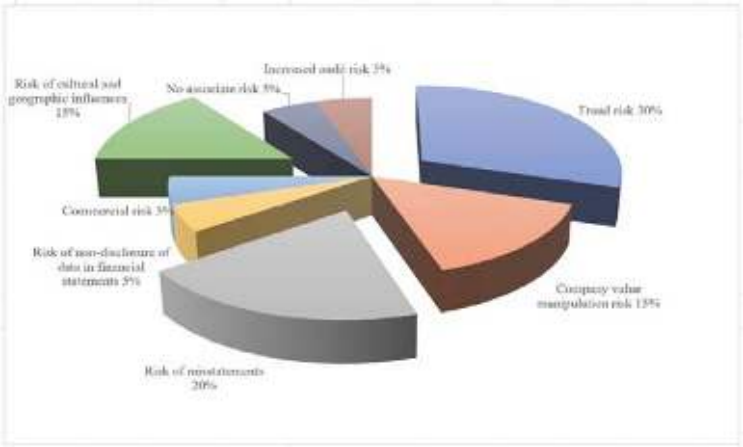
Hussein et al. (2017)	Study ascertains whether cultural affiliation of the negotiator impacts this fairness effect	Questionnaire per email	64 American and 64 Chinese participants in an US university master's program	Cross-cultural differences in the perception of fairness affect transfer price negotiation	Risk of cultural and geographic influences
Ignat et al. (2017)	The objective of the research was to identify the level of strictness for the transfer pricing regulations from the European countries.	Report analysis processed with computational formula	47 countries from Europe in 2015	The results obtained from the analysis performed shows that the strictness of the transfer pricing regulations decreases from the west of the Europe to the east of this continent.	Risk of cultural and geographic influences
Kohlbeck and Mayhew (2017)	Investigates whether or not related party transactions serve as "red flags" that warn of potential financial misstatement.	Empirical-archival methods	3,588 firm-year observations from 2001, 2004, and 2007 - USA	Tone-based RPTs serve as signals of higher risk of material misstatement. Restatements are more likely when a firm engages in related party transactions.	Risk of misstatements
Zheng (2017)	Investigates whether there is a tax avoidance difference between stand-alone companies and diversified companies	Multivariate regression analyses	30,826 firm-year observations from 6057 firms in USA	The conclusion shows that the diversified firms engage in fewer tax avoidance practices than stand-alone firms.	Fraud risk
Rathke et al. (2016)	Analyses the characteristics of transfer pricing systems across countries.	Econometric model	Transfer Pricing Guidelines published by the major audit and tax advisory firms for the year 2014.	The overall TP systems throughout different groups of countries present general similarity but there is no complete homogenity across them, which indicates that some of them are more biased towards regarding profit shifting and tax avoidance behaviour.	Risk of cultural and geographic influences

Gao et al. (2015)	Presents a comprehensive model that aims to determine the optimal transfer price for a MNC to maximize the entire organization's profit.	Mathematic model	A bilinear model was created and sampled using Matlab R2012a.	Division managers should keep a close eye on tax rate fluctuations of the selling/buying counterparts as a decrease in the tax rate might lead to the other party's revenue loss or cost increase.	No associated risk
Habib at al. (2015)	Investigates the effect of related-party transactions on audit fees in China.	Regression models	300,395 related party transaactions sampled, final analysis carried on 8661 transactions in Indonesia	Audit fees are relatively high for RPTs involving loans and capital transfers when listed parents transact with their subsidiaries. Chinese audit market raises doubt about audit quality.	Increased audit risk
Davies et al. (2014)	Intra-firm prices may systema-tically deviate from arm's length prices for two motives: pricing to market and tax avoidance	Empirical model	67,312 firms, 5,482 products and 45 countries	Significant increase in revenues may be achieved at a small cost by targeting reduced tax countries and fiscal heaven countries.	Fraud risk
Kang et al. (2014)	Examines whether RPT are used as a mechanism for tunneling among firms belonging to large business groups in Korea.	Econometric model	982 firm-year data of publicly traded firms in Korea	The control–ownership wedge is positively associated with the nr. of RPTs. RPTs increase as voting rights increase, while RPTs decrease as cash flow rights increase.Also, RPTs occur when the agency problem is severe are used as means of tunneling, thus destroying firm value.	Company value manipulation

Source: own projection

In 2017, Kohlbeck and Mayhew classified related party transactions into two categories, "Tone" transactions and "business" transactions, thus making it easier to identify the risks associated with these transactions. Most works follow this classification model in the analysis performed: business transactions were associated with the following risks: the manipulation of the taxable mass and its transfer to countries with low taxation or tax havens, failure to present financial statements, error and commercial risk due the fact that the affiliates depend in a significant way on a single client (the parent company) and with the Tone transactions the risk of manipulating the value of the listed companies and manipulating the profits for the benefit of the managers, was associated.

Figure no. 1: Risks identified in the analyzed studies



Source: own projection

The analysis reveals that the biggest weight in the identified risks belong to fraud risk, risk of misstatements and the company value manipulation risk (Figure no. 1). This triggers an alert regarding the current regulations applicable to this type of transactions and indicates a critical need for a close tracking of them by the responsible authorities.

Conducting the analysis and implementation of identification and disclosure procedures in financial statements should become a priority for any company conducting significant international transactions. The analysis and compliance process can be a rigorous one, lasting but which can take the company out of a risk area from a fiscal point of view and place it in a correct position of fiscal compliance.

5. Conclusions

Establishing the conceptual framework for audit regulations (which considers related party information to be important to users of financial statements) is very important, as the existence of a certain level of control or influence can have an impact on the terms of transactions between affiliated entities. Also, the identification of the way and conditions in which two affiliated parties perform operations is important for understanding the financial statements of the entity and in this context the conclusions of the papers presented and published may bring things in a more concrete perspective: (1) Extending the analysis by drawing up a target strategy that considers only articles related to related party transactions, responsibilities and risks in financial reporting; (2) Analysis of the conditions in which transactions with affiliated parties improve the performance of companies. While related party transactions are negatively associated with the company's performance and some of the studies analyzed have tried to prove otherwise, namely that these transactions can increase performance by eliminating the risks associated with the industry and taking responsibility for those in charge of governance; (3) Contributes to the literature by providing a better perspective in analyzing the motivations behind related party transactions, determining their impact on firm performance and could help investors determine whether or not affiliated transactions are beneficial to their firms and what risk categories they must consider by choosing one branch of activity or another; (4) Highlighting the level of information regarding transactions with related parties presented in the financial statements by identifying new influencing factors, such as the industry in which the analyzed companies operate, the quality of management; (5) Identification of additional disclosure requirements regarding the characteristics of the business in order for those related parties to improve their understanding of the nature, risks and responsibilities behind disclosed related party transactions.

So far, the existing literature covering this area has tried to explain and define the benefits and also the risks associated with related party transactions and this study aimed to take the research a step further by aggregating the information into a more condensed form.

One of the limitations of this study is given by the fact that the companies in the analyzed sample were large companies listed on the stock exchange or public companies and the conclusions drawn cannot be extrapolated to the rest of the companies that hold such transactions in their portfolio. It would be interesting to open future research avenues that would also include this segment considered probably negligible, but to which the tax authorities in the jurisdictions now turn their attention by introducing a new set of reporting on these types of transactions. It is unanimously accepted that the automatic exchange of information in the field of taxation between EU Member States is essential in achieving the objective of ensuring fair taxation, namely the taxation of profits in the jurisdictions in which the taxable amount is generated. For transactions between affiliates, cross-reporting at the international level and the extension of the exchange of information on transactions with fiscal risk take on other dimensions in terms of content and reporting.

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Reporting Lease Contracts According to IFRS 16: Case of Romanian Entities

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Abstract

In 2016, a new accounting standard on leases was issued and it is effective since 2019. According to IFRS 16 "Leases", the classification of lease contracts as finance or operating leases is eliminated; significant changes could emerge for the lessee.

Our study examines the effect of the new accounting model for lease provided by IFRS 16 in case of Romanian entities listed on Bucharest Stock Exchange. We analyzed the financial statements prepared for 2019. The main objectives are to analyze the changes in the balance sheet and the profit or loss account subsequent to the application of IFRS 16 and to measure the conformity with the requirements of this standard.

The results show that the new rules regarding lease accounting do not bring significant changes on the financial statements of the lessee. We also find that, on average, Romanian listed entities present a low level of compliance with IFRS 16.

Key words: IFRS 16 "Leases"; Romanian listed entities; Bucharest Stock Exchange (BSE); right-of-use asset; disclosure index
J.E.L. classification: M41

1. Introduction

Globalization and financialization of the economies created the premises for the development and implementation of a set of accounting standards, designed to allow the presentation of the financial information in a world-wide accepted and understandable business language. This set of accounting standards, known as IFRS (International Financial Reporting Standards), are issued by the International Accounting Standards Board (IASB) since 1973 and gained, in time, more and more legitimacy. Nowadays, according to IASB, nearly all of the analyzed jurisdictions (156 of the 166) support the application of these accounting standards (IFRS Foundation, 2018). At the European Union level, IFRS are mandatory for the preparation of financial statements of all entities whose securities are traded on an EU regulated market.

The accounting standards endeavor to keep up with the changes in the way business are running. In the field of lease accounting and disclosures, recent debates question the effectiveness, the ethics and consistency of the old accounting model in relation with the international conceptual framework and the objective of financial reporting.

Until 2016, two types of leases must be segregated according to the substance over form principle, which means "representation of the substance of an economic phenomenon instead of representation of its legal form only" (IFRS Framework, 2.12). Finance leases are capitalized as assets and liabilities in the balance sheet (which is called Statement of financial position, according to IAS 1), while operating leases only result in the recognition of an expense in the profit or loss account (or Statement of comprehensive income, according to IAS 1) prepared by the lessee. There is a hairline distinction between financial lease and operating lease; a lease contract is recognized as financial lease if it "transfers substantially all risks and rewards incident to ownership" to the lessee

(IAS 17.4). All the others lease contracts are classified as operating lease.

The new standard on leases, IFRS 16, was issued in 2016 and is effective since 1 January 2019. Significant changes were introduced for the lessee, along with the elimination of the classification of lease contracts as finance or operating leases. According to the new regulation, with very few allowed exceptions, all leases must be capitalized and presented in the balance sheet. A right-of-use asset and a lease liability are recognized in the balance sheet of the lessee. In the profit or loss account, two types of expenses are disclosed: an operating expense, represented by the depreciation of the right-of-use asset, and a financial expense, related to the interest.

In Romania, entities listed on BSE took the step towards the application of the new standard on leases, IFRS 16, since 1 January 2019. The financial statements for 2019, available in early 2020, present the effect of the first application of IFRS 16, allow the analysis of the degree of changes in the balance sheet and the profit or loss account and of the conformity with the requirements of IFRS 16.

The objective of our research is twofold. First, we measure the impact of the adoption of IFRS 16 on the financial position and performance of Romanian listed entities and compare the results against the objectives set out by the IASB. Second, we analyze the degree of compliance with the requirements from the standard on leases and measure the disclosure index achieved by Romanian listed entities. The analysis is made only from the perspective of the lessee.

We consider that this topic is useful for investors and other stakeholders, allowing them to understand the effects of the first-time application of the new accounting model for lease on the financial statements of Romanian listed entities. For the members of the accounting profession in Romania, out research could provide a useful picture on how listed entities manage to go through the process of applying the new requirements regarding leases and on the accounting policies they decided to choose. Since Romanian accounting regulation, applicable for unlisted entities, provides the same definitions for assets and liabilities as the IFRS Framework and lists the substance over form principle among the ten general financial reporting principles, we dare to say that we are not far from the moment when the Romanian accounting regulating body (The Ministry of Finance) analyses the opportunity of a change in the accounting and reporting of leases, in line with the international standard.

2. Literature review

From an old, vulnerable lease accounting model…

According to IAS 17, the lessee capitalized a lease contract according to the substance over form principle, only when it transfers all the risks and benefits to the lessee. Nobes (2005) states that a better approach for the segregation between the two types of lease contracts is to use the concepts of assets and liabilities defined by IFRS Framework.

Firms with significant amounts of goods used in the terms of lease contracts take advantages from classifying the leases as operating leases; as a consequence, significant liabilities are not reported in the balance sheet and the corresponding ratios for solvability, liquidity are improved.

According to an estimation published in 2016, over 85 per cent of all leases were off balance sheet. As a result, investors faced a significant burden, having to recalculate important ratios, after the adjustment made on the balance sheet in order to reconsider the assets and liabilities (Lloyd, 2016).

Frecka (2007) questions the ethicality of intentionally structuring lease contracts to avoid disclosing asset and liability amounts.

… to a new, perfectible solution

The dream of David Tweedie, the former chairman of IASB, that "one day he would like to fly on an airplane that actually appears on the airline's balance sheet" came true with the issuance and adoption of the new standard on lease, IFRS 16.

The new standard brings significant changes in lease accounting for the lessee. The lessee will no longer be required to determine whether a lease contract represents a finance lease or an operating lease. All leases are required to be recognized in the balance sheet, by means of a right-of-use asset and a liability corresponding to the obligation to make payments to the lessor. Two exceptions from this rule are provided for by IFRS 16, related to short-term leases and leases for which the underlying asset is of low value. IFRS 16 is in force beginning with 1 January 2019.

IFRS 16 solves the problem of possible different treatment of similar lease arrangements between entities, reduces the field for opportunistic choices made by managers, brings the information about leases in the balance sheet of the lessee, being easier to interpret by analysts.

However, the new lease standard also has its critics. First, some argue that there will be a lack of symmetry between the accounting of the lessee and the lessor. Bunea (2017) presents the opinions expressed by auditors, academics and EFRAG, stating that "both the lessee and the lessor should apply a single accounting model based on the right-to-use asset theory". From the preparers' perspective, the same author suggests that they are "willing to accept conceptually unsubstantiated solutions" if costs savings occur.

Second, some preparers do not agree with the right-of-use model, since they believe that in many cases the objective of a lease contract is not to purchase the asset, but to achieve operating flexibility.

Third, large entities consider that a single model is not suitable since the economic substance of the contract may vary.

Kabir and Rahman (2018) analyzed the provisions of IFRS 16 in relation with the Conceptual Framework. They find that, instead of relying on relevance and faithful representation, IASB used a notion outside the Framework to justify some lease accounting requirement, the consistency with other IFRSs.

The expected effects of the application of IFRS 16

In the European Union, since 2005, the application of the IFRSs is compulsory for the preparation of consolidated financial statements of all listed entities. The new standard on leases must be implemented by European companies starting with 2019.

According to IASB, the major benefits of IFRS 16 are improved quality and comparability of financial reporting.

Analyzing the anticipated effects of IFRS 16, Bunea (2017) find that there are no significant differences on financial statements or on costs associated with the implementation; however, "different perceptions" are perceived among different stakeholders.

Segal and Naik (2019) believe that the new assets and liabilities reported in accordance with IFRS 16 significantly change to key ratios of the lessee. Still, the transition to IFRS 16 has no effect on the cash flows and on the economic perspective of the business.

A research comprised of European companies finds that the change of assets and liabilities after adopting IFRS 16 ranges from zero to 84% for assets and 160% for liabilities. The authors also find that the most affected sectors are food and retail, hotels and transportation, while the least affected ones are banks and insurance, real estate, household and personal products (Morales-Diaz and Zamora-Ramirez, 2018).

Giner and Pardo (2018) find that investors read the information available in the notes regarding operating leases and use it in establishing market prices, in case of retailing firms.

IFRS in Romania

Romanian listed entities apply the IFRSs since 2007 for consolidation purpose and since 2012 for the preparation of individual financial statements. The recent adoption of IFRS in Romania was of great interest for many researchers.

Neag (2014) analyzed the reconciliation of shareholders' equity and net income of the Romanian listed companies from the first individual financial statements presented in accordance with IFRS and concluded that the application of IFRS had a small effect on net income and shareholders' equity.

Păunescu (2015) documents the existence of tensions between accounting and taxation and contends that adapting the Fiscal Code to the needs of the companies that use the IFRSs could be a solution to solve these tensions.

In case of entities listed on BSE, Mașca (2015) found that sustainable companies are interested in conservatism more than others.

Takacs (2012) tested the value relevance of earnings in case of Romanian listed entities and found that IFRS adoption had a negative effect on accounting information from the market perspective.

Țurlea et al. (2019) analyzed the discretional accruals estimated under the Romanian Accounting Regulations, as well as under the IFRSs and found that the auditor's type does not statistically influence the value of discretional accruals either if they are estimated using IFRS or the Romanian regulation.

Petre, S. and Albu, N. (2020) investigated the institutional context in which companies' compliance with IFRS is created over time, by analyzing data reported by Romanian entities listed on Bucharest Stock Exchange during 2013-2017. They found that overall, the three surveyed companies display a low level of compliance, and, surprisingly, the level of compliance decreases over time.

The compliance with the requirements of certain IFRS was tested by Gîrbină and Bunea (2009) for IFRS 7, Gorgan and Gorgan (2014) for IAS 38, Ponce *et al.* (2016) for the comprehensive income.

Our research complements the knowledge about IFRS adoption in Romania and provides an insight on the effects of the first-time application of IFRS 16 in case of Romanian listed entities.

3. Research methodology

The sample includes all Romanian entities, listed on the Bucharest Stock Exchange (BSE). From the total number of 84 listed entities, we eliminated from the study the financial institutions, the international companies and the entities that, according to their financial statements, do not have ongoing leasing contracts. Thus, the final sample consists of 42 Romanian entities, as lessees, that presented for the first time the information about lease in accordance with IFRS 16.

Data was collected from the individual annual financial statements prepared for the year 2019, available on BSE website.

Our first objective is to measure the impact of the adoption of IFRS 16 on the financial position and performance of Romanian listed entities and compare the results against the objectives set out by the IASB.

The impact of IFRS 16 was estimated by means of the magnitude of lease engagements. In order to measure the impact on the financial position, we determined the share of the right-of-use asset in the total assets and the share of lease liabilities in the total amount of liabilities, as of 31 December 2019. The impact of lease accounting on the financial performance was calculated by means of the share of depreciation charge for right-of-use assets in the total operating expenses and the share of interest expense on lease liabilities in the total financial expenses, reported for 2019. A more appropriate approach would have been to identify the right-of-use asset, the lease liability and the interest expense that resulted from the reclassification of operating lease at the date of the transition to IFRS 16. However, only a small number of entities disclosed this type of information; accordingly, this in-depth analysis could not be performed.

The second objective is to analyze the degree of compliance with the requirements from the standard on leases and measure the disclosure index achieved by Romanian listed entities. We identified 20 items that must be disclosed in the financial statements, according to the requirements of IFRS 16. A content analysis of the components of the financial statements (balance sheet, profit and loss account, statement of cash flow and notes to the financial statements) of surveyed entities was performed, in order to identify the accounting policies and disclosures made in accordance with IFRS 16. We used the score "1" when the required information was disclosed and the score "0" was allocated when we didn't find the information in the financial statements. Some of the requirements were not applicable for certain entities. For example, only a small number of entities choose to apply the fair value model for investment properties or tangible assets and, consequently, the disclosure requirement about the fair value model of the right-of-use assets is not applicable. For these circumstances, the disclosure requirement was marked as "not applicable" and the maximum number

of items to be disclosed by that entity was recalculated in order to take into account only the total number of applicable items to be disclosed. The disclosure index applied in our research was computed for each entity as a ratio between the number of disclosed items and the number of items applicable to that entity. This research method was used by Gîrbină and Bunea (2009). The following computation relationship was used:

$$DI = \frac{\sum_{i=1}^{m} d_i}{\sum_{i=1}^{n} d_i}$$

where:

DI – the disclosure index of the provisions from IFRS 16 in case of Romanian listed entities
d – the score for each surveyed entity
m – the number of items disclosed by an entity
n – the maximum number of items applicable to that entity

It is preferable that the disclosure index has a value as close as possible to 1, which means a very high level of disclosure and proves great compliance with the requirements of IFRS 16.

4. Results and findings

Table 1 summarizes the descriptive statistics regarding the impact of the new lease standard on the financial position and performance of Romanian listed entities.

Table no. 1 Descriptive statistics on the impact of IFRS 16 – entire sample

Indicator	The share of the right-of-use asset	The share of lease liabilities	The share of depreciation charge for right-of-use assets	The share of interest expense
Mean	0.032731	0.085400	0.018432	0.155823
Median	0.007050	0.036900	0.009800	0.074650
Standard Deviation	0.076465	0.156837	0.023404	0.229823
Minimum	0.000100	0.001900	0.000100	0.000100
Maximum	0.420100	0.846700	0.092000	0.874900
Count	32	33	28	26

Source: authors' own processing

Table 1 presents the figures for the entire sample. The mean of the right-of-use asset is very small and represents 3.27% of the total assets presented in the balance sheet. This result suggests that the first-time application of IFRS 16 has only a very small impact on the assets of the Romanian listed entities. However, a maximum share of 42.01% was recorded for an entity that activates in the transport and storage field. In line with the results obtained for the right-of-use asset, we found that the mean of the share of depreciation charge for right-of-use assets in the total operating expenses is also small 1.84% and the highest value 9.20% was obtained by an entity in the field of information and communications.

The share of lease liabilities in the total amount of liabilities presents a mean of 8.54% and shows that for Romanian listed entities the leases contracts are a significant means of financing. But, since for the most of the surveyed entities we could not identify information about the new lease liability emerging from reclassifying the operating lease, we are not able to interpret this result in relation with the lease accounting standard. The interest expense on lease liabilities is also significant and represents 15.58% of the financial expenses.

Overall, our results allow us to conclude that the new rules regarding lease accounting do not bring significant changes on the financial statements of the lessee.

Next, we present our findings by industry. Since the impact of IFRS 16 is presumed to be higher for certain sectors, we classified the surveyed entities into subgroups according to their main field of activity. We only took into account the sectors with data for three or more than three entities.

Accordingly, the analysis was performed on four subgroups: extractive industry (EI), manufacturing industry (MI), trade (T), transport and storage (T&S). The results are summarized in Table 2.

The sector most affected by the introduction of the new accounting standard on leases is transport and storage, where the right-of-use asset represents 10.87% of the total assets, the share of lease liabilities in total amount of liabilities is 31.19% and the interest expense has a share of 59.63% in total financial expenses. Significant impact of the introduction of IFRS 16 was also noticed in case of trade sector, where the share of the right-of-use asset in total assets is 5.76%, the share of lease liability in total liabilities is 16.30% and the share of interest expense in financial expenses is 23.89%. At the opposite pole is the extractive sector, the least affected by the introduction of the new provisions on lease accounting.

Table no. 2 Descriptive statistics on the impact of IFRS 16 by subgroups of industry

	Mean				**Standard deviation**				**No. observations**			
	EI	**MI**	**T**	**T&S**	**EI**	**MI**	**T**	**T&S**	**EI**	**MI**	**T**	**T&S**
The share of the right-of-use asset	0.0055	0.0178	0.0576	0.1087	0.0041	0.0263	0.0484	0.2077	4	14	3	4
The share of lease liabilities	0.0885	0.0332	0.1630	0.3119	0.1209	0.0460	0.1554	0.4632	4	16	3	3
The share of depreciation charge for right-of-use assets	0.0029	0.0107	0.0251	0.0241	0.0026	0.0075	0.0246	0.0366	3	12	3	4
The share of interest expense	0.1488	0.0494	0.2389	0.5963	0.1865	0.0728	0.1408	0.4158	4	12	3	3

Source: authors' own processing

According to IASB, some sectors (such as airlines, retailers, travel and leisure, transport, telecommunications, energy, distributors) are more affected than others by the application of the new rules for lease accounting. Also, IASB states that even within industries, some companies are more affected, depending on the extent to which they used off balance sheet leases (IFRS Foundation, 2016a and 2016b).

The results of our study are, to some extent, aligned with the anticipated estimates of the effects of IFRS 16 adoption made by the IASB. According to our results, in Romania the most affected sectors are transport and storage (T&S) and trade (T) and these fields are among those mentioned by the IASB in the project of effect analysis for IFRS 16. Also, within the same sector, Romanian listed entities show different impact of the adoption of IFRS 16. Thus, within the transport and storage sector, from the 4 analyzed entities, 3 present a share of the right-of-use asset below 1% and for 1 entity the share of the right-of-use asset in total assets is 42.01%. Within the trade sector, the share of the right-of-use asset and the share of lease liabilities present the minimum values 0.54%, respectively 0.70% and the maximum values 10.09% and 16.43%.

For our second objective, the degree of compliance with the requirements of IFRS 16 was measured by means of the disclosure index. The results for the disclosure index are presented in the table below, using the descriptive statistics.

Table no. 3 The disclosure index for IFRS 16 in case of Romanian listed entities

Disclosure index	Entire sample	Extractive industry	Manufacturing industry	Trade	Transport & Storage
Mean	0.455808	0.662088	0.431568	0.538462	0.419231
Median	0.461538	0.664835	0.461538	0.538462	0.461538
Standard Deviation	0.221273	0.166506	0.228256	0.076923	0.198763
Minimum	0.076923	0.461538	0.076923	0.461538	0.153846
Maximum	0.857143	0.857143	0.857143	0.615385	0.600000
Count	42	4	22	3	4

Source: authors' own processing

The results show that, on average, Romanian listed entities present a low level of compliance with the requirements provided by IFRS 16. For the entire sample, the mean of the scores obtained for the disclosure index is 0.455808 and is rather closer to 0, meaning a low conformity and disclosure. From the 42 entities included in our study, 22 record a disclosure index above the average. The statistics of the disclosure index calculated by industry indicate that extractive industry and trade are the sectors with the highest scores for the disclosure index.

The maximum disclosure index of 0.857143 was obtained by an entity from extractive industry and one from manufacturing industry. The lowest score of 0.076923 was registered by 4 companies: 1 from constructions field, 2 from manufacturing industry and 1 activating in hotels and restaurants.

We performed a ranking of the disclosure requirements that were met by most of the analyzed entities; the items most frequently disclosed were: the lease liabilities separately from other liabilities (36 entities), the right-of-use assets separately from other assets (33 entities), a maturity analysis of lease liabilities (32 entities). At the opposite side, none of the analyzed entities presented restrictions or covenants imposed by leases, only 2 entities disclosed the cash payments for the interest portion of the lease liability and a small number of entities presented the expense relating to leases of low-value assets (6 entities).

Our findings are not consistent with the expected benefits of IFRS 16 expressed by IASB, stating that "the new accounting will result in more information about leases both on the balance sheet and in improved note disclosures" (IFRS Foundation, 2016a). In case of Romanian listed entities, in the first year of the application of IFRS 16, the conformity with the requirements of this standard is less than satisfactory.

5. Conclusions

Our paper presents insights on the first application of the new accounting requirements in the field of lease contracts, provided by IFRS 16 "Leases", in case of Romanian entities listed on Bucharest Stock Exchange.

First, we analyzed the degree of changes in the balance sheet and the profit or loss account and find that, overall, the new rules regarding lease accounting do not bring significant changes on the financial statements of the lessee. Out analysis by industry show that the most affected sectors were transport and storage and trade. Our findings are consistent with the estimations made by IASB regarding the adoption of IFRS 16.

Second, we measured the conformity with the requirements of IFRS 16 and find that, on average, Romanian listed entities present a low level of compliance with the requirements of this standard.

We believe that this analysis could replicated in order to measure the application of IFRS 16 in subsequent years and improved findings for the disclosure index may result.

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Discounting Cash Flow Method Application in Banking Evaluation

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Abstract

The DCF (Discounted Cash Flow) approach capitalizes prospectus eamings forecasts using comparable company DCF multiples. For both methods, the estimated values are compared to actual market prices to obtain a valuation error. The discounted cash flow method can be applied in the valuation of banking companies in this method all future cash flows are discounted to the present value. From a theoretical point of view, it is considered the most correct but perhaps also the most complex. Very important in this approach are the accuracy with which future revenue streams are estimated and the correctness of setting the discount rate level. This paper examines the accuracy of discounted cash flow (DCF) methods of equity valuation for firms that obtained listing on the bank. The DCF method is implemented by discounting cash flow forecasts based on information contained in listing prospectuses.

Key words: discount rate, net treasury, net working capital, discounted cash-flow
J.E.L. classification: M41, M19, G19

1. Intoduction

This method is the most complex and perhaps the most modern method of valuation and represents the method of financial flows, or, in Anglo-Saxon terms, "discounted cash-flow" (DCF). In the French expression the wording "the method of updating future flows" is used (Allen, F., 2008, p 365-370). The theoretical methodological basis and mathematical calculation of the value of the enterprise through this method is the theory and practice of determining the economic efficiency of investments in general, and economic-financial calculations related to the feasibility of an investment project, in particular.

DCF method (discounted cash-flow) is similar to the method of determining economic efficiency, in that:

- Both are prospective methods, which take into account the economic future of the enterprise, based on investments by using resources from bank loans, loans on the capital market, share capital increases.
- The same calculation methods are used: net cash flow, residual value, discount rate, discounted value (or present).
- The expression of economic-financial indicators is done in current prices, so the influence of inflation is taken into account.
- For a price evolution eroded by a slight change in the inflation rate (Bhat, 2011), the valuation is made in constant prices; In situations with a fluctuating inflation rate, the assessment is made in a currency little affected by inflation. Regardless of the way cash flow is defined, it is practically the difference between the inflows (receipts) and the outflows (payments) made by a company in a period of time.

In the analysis of the annual financial situation of an enterprise, similar notions are used (Bleck, 2010), but different in scope:

- Net working capital (NWC)
- Required working capital (RWC)

- Net treasury (NT)

Working capital is the surplus of stable resources (shareholders' capital and long-term loans) over fixed assets (Morris, S., 2004, Review of Finance 8) (tangible, intangible and financial). It is calculated as:

NWC = Current assets – Current liabilities

Current assets
= Stocks
+ Claims
+ Current accounts
+ Short-term financial investments.

The required working capital expresses the part of the permanent capital that a company must use over the one allocated to financing:

RWC = Stocks
+ Receivables
– Short-term non-bank debt

Net treasury is calculated as the difference between the required working capital and the necessary working capital:

NT = RWC – NWC

2. Literature review

There is little empirical evidence on the effectiveness of equity valuation methods in international equity markets. Much of the evidence on equity valuation methods is from the relatively deep and liquid markets (e.g., Alford, 1992; Kaplan and Ruback, 1995; and Kim and Ritter, 1998). This paper is closely related to Kaplan and Ruback (1995), which indicates that both DCF and P/E methods provide reasonable estimates of value for a sample of large leveraged buy-outs. Whether their results provide unambiguous evidence regarding commonly used share valuation methodologies is unclear for several reasons. First, firms that undertake leveraged buy-outs are more likely to have stable operating cash flows (Opler and Titman, 1993). Valuing the firm cash flows is likely to be more accurate than valuing equity cash flows because flows from operations are less variable than equity flows. Both of these reasons suggest that the potential errors reported in Kaplan and Ruback (1995) are lower than errors obtained in a typical valuation. Third, we are able to use market prices as a benchmark, whereas the transactions valued by Kaplan and Ruback (1995) are performed off-market. Given the large number of market participants in public offerings, the market price is probably a less noisy benchmark. Finally, Kaplan and Ruback (1995) make an error in their valuation by determining the cash flow and the growth rate for their terminal value calculation as if they are independent. Our valuation models jointly determine the terminal cash flow and the future growth rate, because both depend on the level of cash flow retention in the terminal year (see Berkman, Bradbury and Ferguson, 1998).

3. Financial diagnosis of the evaluated enterprise as a research method

The knowledge of the evaluated object (of the evaluated company) is made by studying both the annual financial statements and some information regarding the change of the share capital.

The main documents used to prepare this diagnosis as a research method are the balance sheet and the profit and loss account (Plantin, G., 2008, p 52). The balance sheet is the most important accounting document for the appraiser, because it provides a clear picture of the patrimony accumulated by the organization during its existence, as well as of the financial results obtained in the financial year that ended. The balance sheet analysis performed by the appraiser takes into account the statement of assets and financial results.

Table no. 1. Consolidated balance sheet

Assets	31st December 2018 RON '000	31st December 2019 RON '000
Cash and cash equivalents	5 947 596	4 824 755
Financial assets held for trading	44 806	41 275
Derivatives held for risk management	52 077	1 770
Loans and advances granted to banks	359 973	1 603 003
Loans and advances granted to customers	10 960 548	8 777 265
Securities	1 197 530	569 413
Shares	44 099	44 400
Tangible assets	373 703	310 321
Intangible assets	104 758	103 886
Deferred tax, assets	6 864	-
Profit tax receivables	747	1 203
Other assets	276 354	195 654
Total assets	*19 369 055*	*16 472 945*

Source: Raiffeisen Annual Report, 2019

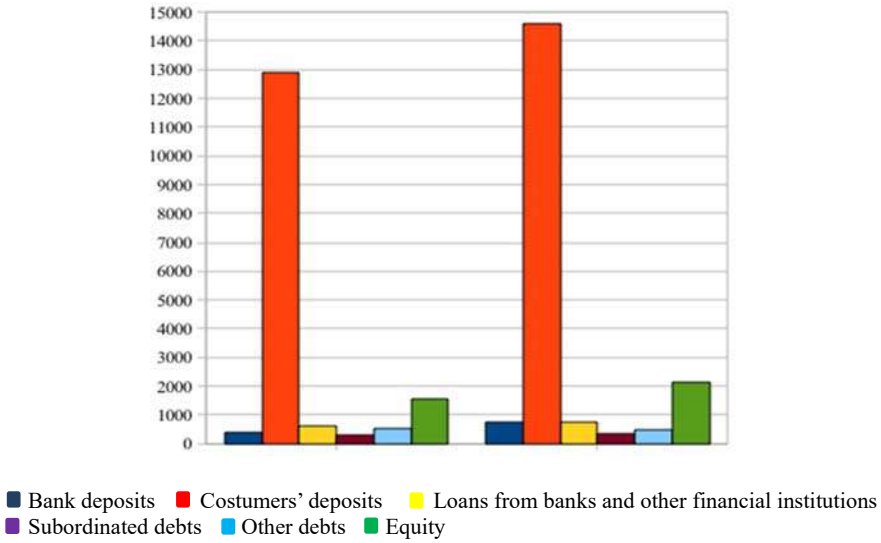
Details regarding the assets evolution:

Raiffeisen Bank's total assets increased by RON 2.5 billion in 2007, an increase of 18.23% compared to 2016. The increase was due in proportion of 45% to the retail business, the corporate business and the treasury contributing with 20%, respectively 10%.

The growth was supported by the development of the network of units (167 new units) and its specialization (at the end of the year there were 46 Mortage Corners and 15 Mortgage Centers). The total assets of the Raiffeisen Group in Romania increased in 2018 by RON 2.9 billion, representing an increase of 17.58% compared to 2017. Loans and advances to customers increased by 25%, the increase being due in proportion of 45% to the corporate customer segment and 55% to the retail customer segment. The growth was supported by the further development of the network of units (122 new units) and its specialization (at the end of the year there are 21 Mortgage

Center units).

Figure no. 1. Asset structure

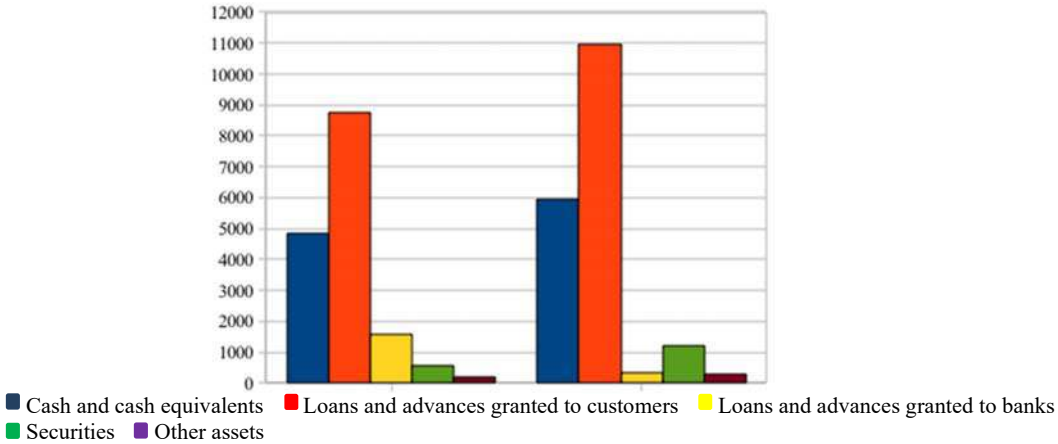


Source: Raiffeisen Annual Report, 2019

Details regarding the liabilities evolution:

Deposits attracted from customers exceeded RON 12.9 billion at the end of 2017, 30% more than in December 2016. Over 40% of this amount represent resources attracted from individuals, large corporations and financial institutions also having a share of 35% in total customer deposits. Deposits attracted from customers exceeded RON 14.6 billion at the end of 2008, 13% more than in December 2007. Of this amount, the term deposits of the clients represent 65%, while the demand deposits 35%. The retail segment has a share of 40% of the total resources attracted from customers of the corporate segment 60%.

Figure no. 2. The structure of liabilities and equity



Source: Raiffeisen Annual Report, 2019

Net income:

Operating income increased by over 30% compared to 2016, with interest income having a share of 45%, and those from commissions of 40% in total. Lending to individuals and the trading part of legal entities had the largest contribution to the increase in income. On the expenditure side, personnel expenses registered the largest increase (+ 30%), the development of the network being the main factor. In 2017, the Bank registered a profit 75% higher than the previous year.

Operating income increased by 46% compared to the previous year, net interest income having a share of 44%, and those from commissions 37% in the total amount. Personnel expenses increased by 22%, and administrative expenses increased by 29%, the development of the network being the main factor. However, the revenue / expenditure ratio has improved to 56%. In 2018, the Raiffeisen Group in Romania registered a net profit 92% higher than the previous year.

Table no. 2. Consolidated profit and loss account

	31st December 2018 RON '000	31st December 2019 RON '000
Interest income	1 581 454	1 059 184
Interest expense	664 091	392 127
Net interest income	*917 363*	*667 057*
Income from fees and commissions	836 800	606 746
Expenses with fees and commissions	68 579	51 411
Net income from fees and commissions	*768 221*	*555 335*
Net trading income	409 758	200 776
Net expenses from other financial instruments at fair value through profit or loss	39 449	4 490
Other operating income	46 640	21 643
Operating income	*2 102 533*	*1 440 321*
Operational expenses	662 182	511 660
Salary expenses	506 223	416 478
Net expenses with provisions for the depreciation value of financial assets	193 357	115 378
Losses from participations in associated entities	12 617	438
Profit before tax	*728 154*	*396 367*
Income tax expense	114 149	76 758
Profit for the financial year	*614 005*	*319 609*

Source: Raiffeisen Annual Report, 2019

4. Application of the Discounted Cash-Flow method for the evaluation of the banking company

Table no. 3 Availability from the beginning of 2018 and 2019

Assets	31st December 2018 RON '000	31st December 2019 RON '000
Cash and cash equivalents	5 947 596	4 824 755
Financial assets held for trading	44 806	41 275
Derivatives held for risk management	52 077	1 770
Financial liabilities held for trading	3 306	2 315
TOTAL	6 047 785	4 870 115

Source: Raiffeisen Annual Report, 2019

Table no. 4. Revenues in 2007 and 2008

	31st December 2018 RON '000	31st December 2019 RON '000
Interest income	1 581 454	1 059 184
Income from fees and commissions	836 800	606 746
Net trading income	409 758	200 776
Other operating income	46 640	21 643
TOTAL	2 874 652	1 888 349

Source: Raiffeisen Annual Report, 2019

Table no. 5 Expenditures in the form of expenses in 2019 and 2018

	31st December 2018 RON '000	31st December 2019 RON '000
Interest expenses	664 091	392 127
Expenses with fees and commissions	68 579	51 411
Net expenses from other financial instruments at fair value through profit or loss	39 449	4 490
Operational expenses	662 182	511 660
Salary expenses	506 223	416 478
Net expenses with provisions for the depreciation of the value of financial assets	193 357	115 378

Losses from participations in associated entities	12 617	438
TOTAL	2 146 498	1 491 982

Source: Raiffeisen Annual Report, 2019

Total income for the year 2018: 1 888 349 thousands RON.
Total expenses for the year 2018: 1 491 982 thousands RON.
The result before tax for the year 2007: 396 367 thousands RON.
Income tax in the year 2018: 76 758 thousands RON.
Result after tax (net) in 2018: 319 609 thousands RON.

The cash availabilities at the end of the two years are represented by the difference between the total receipts and the total payments made by the enterprise during a financial year.

Total income for the year 2018: 2 874 652 thousands RON.
Total expenses for the year 2018: 2 146 498 thousands RON.
The result before tax for the year 2018: 728 154 thousands RON.
Income tax in the year 2018: 114 149 thousands RON.
Result after tax (net): 614 005 thousands RON.

Determining the change in the required working capital

In the analysis of the annual financial situation of an enterprise, similar notions are used, but different in scope:

- Net working capital (NWC);
- Required working capital (RWC);
- Net treasury (NT).

4.1. Working capital:

NWC = Current assets – Current liabilities

Current assets
= Stocks
+ Claims
+ Current accounts
+ Short-term financial investments.

Working capital in the year 2017: 15 817 481 thousands RON - 739 347 thousands RON
= 15 078 134 thousands RON.
Working capital in the year 2018: 18 562 530 thousands RON – 509 412 thousands RON
= 18 053 118 thousands RON.

4.2. Required working capital (RWC):

RWC = Stocks
+ Claims
– Short-term non-bank debt

RWC 2007 = Stocks 0
+ Claims 10 380 268
- Short-term non-bank debt 2 315
RWC 2007 = 10 377 953 thousands RON.

RWC 2008 = Stocks 0
+ Claims 11 320 521
– Short-term non-bank debt 3 306
RWC 2008 = 11 317 215 thousands RON.

Table 4.4. Receivables situation

Assets	31st December 2018 RON '000	31st December 2019 RON '000
Loans and advances granted to banks	359 973	1 603 003
Loans and advances granted to customers	10 960 548	8 777 265
Total	11 320 521	10 380 268

Source: Raiffeisen Annual Report, 2019

Table 4.5. Short-term debt situation

Liability	31st December 2018 RON '000	31st December 2019 RON '000
Financial liabilities held for trading	3 306	2 315

Source: Raiffeisen Annual Report, 2019

4.3. Net treasury (NT):

NT = NWC – RWC

NT 2007 = 15 078 134 thousands RON
– 10 377 953 thousands RON
= 4 700 181 thousands RON.

NT 2008 = 18 053 118 thousands RON
– 11 317 215 thousands RON
= 6 735 903 thousands RON.

5. Conclusions

Our results show that the best DCF valuations have similar accuracy. The methods have median absolute valuation errors of around 15 % and explain around 60 % of the variation in market price scaled by book value. Market and transaction DCF estimates using market-based estimates are the most accurate methods. Industry -based DCF estimates yield larger valuation errors. We attribute the poor industry results to the inability to find appropriate comparable firms in the thin bank market.

The purpose of valuing a commercial company with the object of banking activity is to establish the overall value of the entity as a whole by highlighting the financial position of the entity given the value of indicators such as:

- Fixed assets (physical and moral wear and tear, their economic profitability).
- The degree of indebtedness towards the Central Bank, towards the clients, towards other banking institutions and towards other economic agents.
- The level of the minimum required reserve, the level of cash.
- Ability to mediate economic activities and cash flows.
- Equity, financing methods, shareholding.

The application of the discounted cash flow method in our opinion as a result of the research can ensure the fulfillment of all the conditions in order to ensure a correct and real evaluation of a banking entity (A.C. Kolasinski, 2011, p 1-14).

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Common Stock Index Analysis

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Abstract

The finance and economics literature on the non-linearity and chaos increases in quantity as well in quality in recent years. Studies try to find out the non-existence of the chaos in financial time series. The importance of comon stoks markets index, efficient market hypothesis, independent identically distributed. ROTX is a joint index of the Bucharest Stock Exchange and the Vienna Stock Exchange, which reflects in real time the price changes for the most representative companies traded on the Bucharest Stock Exchange. This research topic comes from the fact that chaos and efficient market hypothesis are mutually exclusive paradigms. This study is motivated from this fact. Nonlinearity and chaos theories were employed to examine the behavior of the Vienna stocks markets all share equity indices.

Key words: capital market, risk, bank regulation, regulatory acconting
J.E.L. classification: G10, G32, M41

1. Introduction

The ROTX index was launched in 2005 by the Bucharest Stock Exchange and the Vienna Stock Exchange. The price changes for the most representative companies traded on BVB are reflected in real time by the Bucharest Stock Exchange. To be included in the structure of the ROTX index, only shares issued by listed and continuously traded companies are eligible. ROTX was made after the same principles according to which CECE type indices were made. On January 1st 2002, the basic period values represented by the three currencies (RON, USD and EUR) were set at 1000 points. For entry in the ROTX index basket, the companies were selected according to the following criteria:

- market capitalization;
- liquidity;
- availability of market prices;
- sectoral representativeness;
- market participants interest.

Market capitalization and liquidity are the main criteria underlying the sorting of companies (Mink, M., 2009, No 217). Those companies with low liquidity, even if they have a large capitalization, can be eliminated from the structure of the index by the ROTX Committee. In general, only the shares traded on the most liquid market shares within the Bucharest Stock Exchange are suitable to be included in the composition of the index, being ensured, moreover, being ensured, moreover, the highest standards of dissemination of information to the market and of the analysis reports drafted by the Romanian or international brokers. The choice of shares is made on the basis of quantifiable criteria (capitalization and liquidity), but does not necessarily constitute a process of mechanical sorting of the respective companies. The inclusion or removing of companies in the index basket is founded on quantitative criteria, which is a analysis base for the Index Committee.

The ROTX index comprises a number of companies limited to the most liquid blue chip stocks that are suitable for trading derivative financial instruments. ROTX's main objective is to reflect the evolution of the share price issued by blue chip companies. As the liquidity of the traded shares increases and the Romanian capital market grows, the liquidity quality requirements will also

increase accordingly. Companies with lower market liquidity and not evolving over time will be replaced by more heavily traded shares. Regarding the determination of a predetermined number in the structure of the ROTX index, no conditions are imposed. Therefore, the number of companies is related to the future development of the Romanian capital market.

The share of individual shares in the composition of the ROTX index is determined by the market capitalization of each company, adjusted by weighting factors:

Market capitalization/ Company	=	number of shares issued	X	current market price	X	free float factor	X	representation factor

The number of shares used to determine the share of each part of the ROTX index is equal to the total number of shares listed on the stock exchange.

Free-float factor

The free-float of a company in the composition of the ROTX index is expressed as a percentage and represents the ratio between the number of shares issued and in free circulation for trading by the public and total shares issued (Forte, A., 2009, p 24).

The free-float exposed in absolute value of a company in the structure of the ROTX index is defined as the total number of shares stated by a company, from which the shares available to the company are excluded, shares of the state and other government subsidiaries, strategy investors, majority shareholders, as well as holdings of at least 5% of other types of investors, with the exception of insurance companies, pension funds, mutual funds and investment funds.

The share of each enterprise in the ROTX index is adjusted accordingly by the use of free-float factors, so that it is not possible for companies with large market capitalization but low free-float to exercise a very strong influence in the index, such as to reflect the actual investment opportunity in the shares issued by each undertaking included in the index basket.

Depending on the free float size established as defined above, the following four weighting factors are applied to each part of the ROTX index structure: 0,25; 0,50; 0,75 and 1,00 (www.kmarket.ro).

The choice of free-float factors to be used on the market capitalization of each enterprise in the index is reviewed, if necessary, quarterly by the ROTX Committee, taking into account the information provided by BVB on the composition of the shareholders. respective companies.

Calculation period and publication of the ROTX index

The Laspeyres chain index formula will be used to calculate the ROTX index. The common ROTX index is denominated in the three currencies, namely: the national currency (RON), the US dollars (USD), and the single European currency (EUR). The ROTX stock index is disseminated and calculated in real time during each trading day on the stock exchange. The opening value of the index is calculated every day from 9.00 CET (10.00 Romanian time) on the basis of the closing prices of the previous trading session according to the data communicated by Reuters, as well as the exchange rate of the national currency in EUR and USD according to information sent by Reuters to WBAG at 9.00 CET on the current day. During trading in the continuous market, the values of the ROTX index for each trading session on the Bucharest Stock Exchange are calculated in the national currency. Based on the latest available prices and the exchange rate of the national currency in EUR and US dollars, according to data communicated by Reuters to WBAG, the closing value of the index is calculated every day at 17 CET (18.00 Romanian time). Those share prices that are communicated after the closing of the trading session at BVB at 13.00 CET (14.30 Romanian time), will not be used in the calculation of the ROTX index.

Spot exchange rate used

For the calculation of the index during the trading session of the values of ROTX expressed in EUR and US dollars, the current spot exchange rates for the national currency in US dollars and EUR will be taken over from Reuters, manifested as the average of free selling and buying quotations to be used simultaneously. ROL is the Reuters code for the exchange rate for US dollars, respectively EURROL for Euro.

According to a pre-established discount program, the exchange rate will be updated every two minutes, the respective exchange rates being valid for a period of two minutes until the next update. If there is no change in the spot exchange rates transmitted by WBAG, the most recent exchange rates reported by WBAG will be used to calculate the ROTX index.

2. Literature review

There are many studies supporting the comon stoks in the literature (Kendall, 1953; Dryden, 1970; Cunningham, 1973; Brock, 1987). These studies find no evidence of chaos in macroeconomic time series in the US and Canadian markets. The studies on the United Kingdom stock market also detect the weak form market efficiency. These authors base their studies on the assumption that UK stock market price changes are i.i.d. Fama (1965) admit that linear modeling techniques have limitations as they are not sophisticated enough to capture complicated 'patterns' which chartists claim to see in stock prices. Moreover, most of the studies on the behavior of ISE market prices supported the weak form market efficiency against the existence of chaos (Kenkül, 2006; Adali, 2006).

Barnett et al. (1996) report the successful detection of chaos in the US division monetary aggregates. This conclusion is further confirmed by several authors (e.g. Hinich and Rothman 1998; Barnett and William, 2004). Furthermore, foreign exchange markets are an essential domain in which chaos has been detected (Mantegna and Stanley, 2000). Many researchers (Campbell et al., 1997; Lee et al., 1993; Bonilla et al., 2006) argue that financial market series exhibit non-linearity. The terms of many financial contracts such as options and other derivative securities are also nonlinear (Mantegna and Stanley, 2000). Therefore, a natural frontier for financial econometrics is the modeling of nonlinear phenomena (Barnett and William, 2004; Barnett et al., 1997; Barnett and Hinich, 1992).

3. Research methodology

Descriptive statistics for the observations were shown in Table 3.1 and Table 3.2. The daily returns of the ROTX composite index were calculated as the change in logarithm of closing stock market indices of successive days. Taking the first differences may not only ensure that the time series are stationary but also it is a common practice in standard econometric work to whithin the time series.

4. Findings. The construction mechanism and the calculation formula of the ROTX index in the national currency RON

$ROTX_t = ROTX_{t-1} * [\frac{\sum_{i=1}^{N}(P_{i,t} * Q_{i,t-1} * F_i * R_i)}{\sum_{i=1}^{N}(P_{i,t-1} * Q_{i,t-1} * F_i * R_i)}]$

$ROTX_t$ = the value of the ROTX index at the time interval t;
$ROTX_{t-1}$ = the value of the ROTX index at the time interval t-1;
$P_{i,t}$ = share price i in national currency at time interval t;
$P_{i,t-1}$ = share price i in national currency at time interval t-1;
$Q_{i,t-1}$ = the number of shares in the share capital of the enterprise and at time t-1;
F_i = free float factor for company i;
R_i = the representation factor for company i;
N = the number of companies included in the structure of the ROTX index.

The calculation formula for the ROTX index in US dollars USD

$ROTX_t = ROTX_{t-1} \left[\frac{\frac{1}{ROL/USD_t} * \sum_{i=1}^{N}(P_{i,t} * Q_{i,t-1} * F_i * R_i)}{\frac{1}{ROL/USD_{t-1}} * \sum_{i=1}^{N} P_{i,t-1} * Q_{i,t-1} * F_i * R_i}\right]$

$ROTX_t$ = the value of the ROTX index at the time interval t;
$ROTX_{t-1}$ = the value of the ROTX index at the time interval t-1;

ROL/USD = average selling and buying quotes available at the same time for the exchange rate of the ROL against the USD at time t, respectively t-1;
$P_{i,t}$ = share price i in national currency at time interval t;
$P_{i,t-1}$ = share price i in national currency at time interval t-1;
$Q_{i,t-1}$ = the number of shares in the share capital of the enterprise and at time t-1;
F_i = free float factor for company i;
R_i = the representation factor for company i;
N = the number of companies included in the structure of the ROTX index.

Formula for calculating the ROTX index in the single European currency EUR

$$ROTX_t = ROTX_{t-1}\left[\frac{\frac{1}{ROL/EUR_t}*\sum_{i=1}^{N}(P_{i,t}*Q_{i,t-1}*F_i*R_i)}{\frac{1}{ROL/EUR_{t-1}}*\sum_{i=1}^{N}P_{i,t-1}*Q_{i,t-1}*F_i*R_i}\right]$$

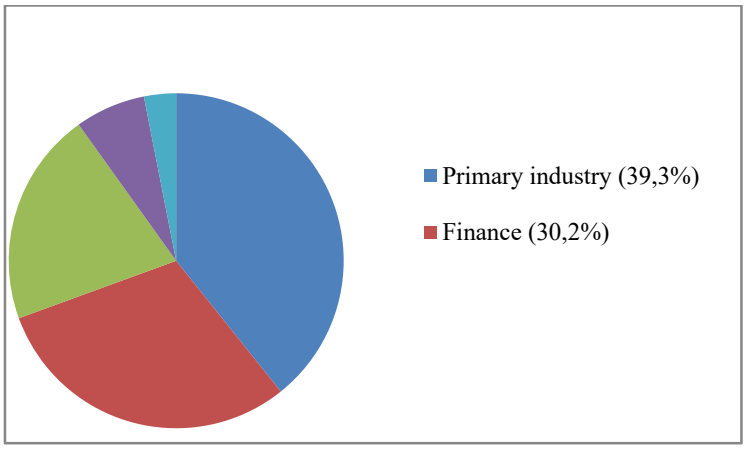
$ROTX_t$ = the value of the ROTX index at the time interval t;
$ROTX_{t-1}$ = the value of the ROTX index at the time interval t-1;
ROL/EUR = average selling and buying quotations available at the same time for the exchange rate of the national currency ROL against EUR at time t and t-1 respectively;
$P_{i,t}$ = share price i in national currency at time interval t;
$P_{i,t-1}$ = share price i in national currency at time interval t-1;
$Q_{i,t-1}$ = the number of shares in the share capital of the enterprise and at time t-1;
F_i = free float factor for company i;
R_i = the representation factor for company i;
N = the number of companies included in the structure of the ROTX index.

Table no. 1 The composition of the ROTX index on 10.05.2019

Symbol	Company	Stocks	Reference price	Free-float	Representation factor	Correction factor	%
SNP	OMV PETROM S.A.	56.644.108.335	0,3855	0,30	1,000000	1,000000	20,72
FP	FONDUL PROPRIETATEA	9.101.963.266	0,9700	0,80	0,920000	1,000000	20,55
TLV	BANCA TRANSILVANIA S.A.	4.815.083.342	2,1500	1,00	0,600000	1,000000	19,65
SNG	S.N.G.N. ROMGAZ S.A.	385.422.400	34,0500	0,30	1,000000	1,000000	12,45
BRD	BRD GROUPE SOCIETE GENERALE S.A.	696.901.518	11,6600	0,40	1,000000	1,000000	10,28
TGN	S.N.T.G.N TRANSGAZ S.A.	11.773.844	355,0000	0,50	1,000000	1,000000	6,61
EL	SOCIETATEA ENERGETICA ELECTRICA S.A.	345.939.929	10,7500	0,40	1,000000	1,000000	4,71
DIGI	DIGI COMUNICATIONS N.V.	100.000.000	24,6000	0,40	1,000000	1,000000	3,11
TEL	C.N.T.E.E TRANSELECTRICA	73.303.142	20,6000	0,40	1,000000	1,000000	1,91

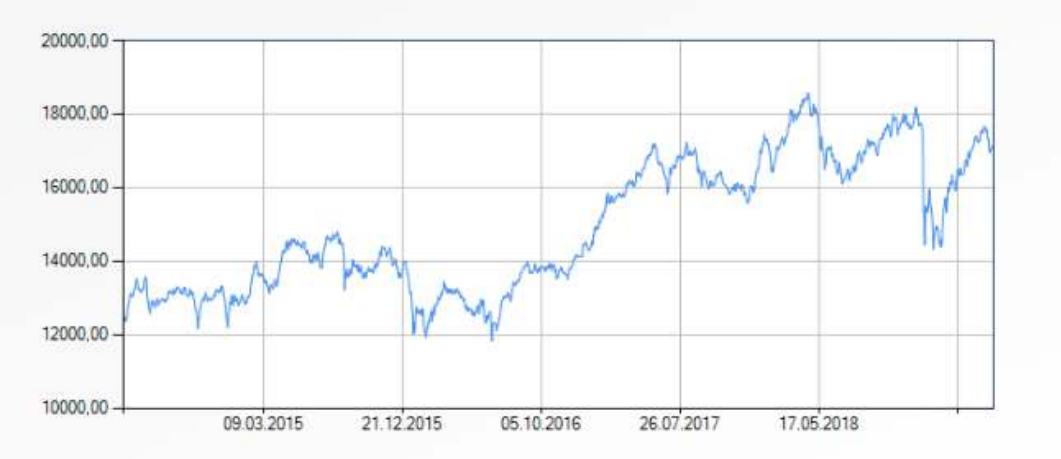
Source: www.bvb.ro

Figure no. 1 Branch structure



Source: www.wienerborse.at

Figure no. 2 The evolution of the ROTX stock index in the period 2015-2018



Source: www.bvb.ro

Figure no. 3. The evolution of the ROTX stock index in the period 2015-2019



Source: www.wienerborse.at

The attached graphs show the evolution of the ROTX stock index on the Bucharest Stock Exchange, respectively on the Vienna Stock Exchange in the last four years.

As can be seen, in the first quarter of 2015, the ROTX index registered a value of 13,117.77 points. Growing slightly by the end of the year, it reached a number of 13,600.09 points. The year 2016 came with a sudden decrease for ROTX, registering 12,100.46 points, signifying a low interest of investors regarding the trading on the regulated market. As can be seen from the chart, the price of the index increased at the end of this year, registering a number of 14,133.43 points.

The year 2017 is a successful year of the ROTX index, registering high price values, reaching 16,908.82 points in May. The same represents the year 2018 for the ROTX stock index, its value of points rising to 18,395.81. These significant price increases represent a positive activity of the listed companies, in the composition of the index.

Table no. 2 Historical data of the ROTX index April 2019

Data	Open price	Day	Low	Close price	%
01.04.2019	16.819,17	17.055,42	16.819,17	17.023,87	1,24%
02.04.2019	17.031,21	17.081,21	16.987,65	17.033,18	0,05%
03.04.2019	17.039,63	17.096,81	17.017,50	17.049,81	0,10%
04.04.2019	17.056,14	17.121,15	17.056,14	17.080,05	0,18%
05.04.2019	17.080,05	17.170,89	17.072,71	17.154,19	0,43%
08.04.2019	17.161,52	17.264,44	17.161,52	17.240,86	0,51%
09.04.2019	17.240,86	17.405,31	17.240,86	17.357,89	0,68%
10.04.2019	17.360,94	17.389,44	17.336,57	17.357,39	0,00%
11.04.2019	17.364,73	17.416,10	17.318,05	17.408,76	0,30%
12.04.2019	17.408,76	17.408,76	17.272,01	17.275,18	-0,77%
15.04.2019	17.275,18	17.373,29	17.271,13	17.285,80	0,06%
16.04.2019	17.288,97	17.304,07	17.184,33	17.234,75	-0,30%
17.04.2019	17.264,10	17.295,34	17.205,82	17.279,23	0,26%
18.04.2019	17.288,54	17.347,94	17.230,93	17.291,72	0,07%
19.04.2019	17.291,72	17.440,79	17.291,72	17.438,66	0,85%
22.04.2019	17.431,33	17.561,82	17.431,33	17.561,82	0,71%
23.04.2019	17.561,82	17.585,48	17.469,67	17.483,99	-0,44%
24.04.2019	17.491,33	17.537,97	17.470,35	17.500,34	0,09%
25.04.2019	17.497,17	17.632,38	17.493,95	17.597,38	0,55%
30.04.2019	17.584,71	17.715,85	17.541,49	17.652,52	0,31%

Source: www.intercapital.ro

5. Conclusions

The ROTX index can be considered as a replicable reference index for the Romanian capital market. This index is created to form a representative reference for the Romanian capital market and to be used as a support asset for derivative financial instruments listed on a stock market, and also for structured products.

When it comes to the Stock Exchange or the over-the-counter market, investors need a benchmark that expresses the evolution of the market. For this reason, securities brokerage companies have set up their own market analysis indicators. While investors follow the evolution of stock indices, they form a suggestive image of the market they want to invest in. Approximately recent products on the Romanian market, stock indices have a large set of concepts in the countries where the capital markets appeared many years ago.

First, stock indices were set only for stocks, now there are indices that monitor the evolution of other valuables, such as bonds. The variety of stock products and the capital market has resulted in

the diversification of synthetic products, called stock indices. The indices being a fine barometer of the capital market, it helps us in comparing the performances of the national stock exchange with the European or international stock exchanges, thus being able to estimate the potential of our stock exchange compared to the big stock exchanges of the world (Acharya, 2009).

In their development, stock market indices extended from the plan of a single capital market existing in a country, to the plan of the world financial market by the emergence of world indices. Referring to Romania, the stock market took place in the interwar period, and then starting with 1995. In September 1997, the first stock index appeared, called the BET index (Bucharest Exchange Trading). In Vienna, in 1818, the shares were traded for the first time. The first joint stock company to be listed on the Vienna Stock Exchange was the National Bank of Austria. Due to the political and economic significance of the Habsburg monarchy at the time, Wiener Borse gained international recognition.

Regarding the 2 markets, there are numerous advantages in terms of companies listed on the Bucharest Stock Exchange and the Vienna Stock Exchange: increased visibility among business participants and current and potential customers; free public notoriety; determining a market value of the enterprise, much higher than in documents; increasing the trust of Romanian and foreign business partners; attracting new partners.

In addition to the other important indices of the two markets, the main objective of this paper was the description, analysis and evolution of the common stock exchange index ROTX of the Bucharest Stock Exchange and the Vienna Stock Exchange. ROTX is a common index of the two stock exchanges, which reflects in real time the price changes for the most representative companies traded on the Bucharest Stock Exchange. The ROTX index can be considered as a replicable reference index for the Romanian capital market. Although at the time it was created, it contained 15 shares in its structure, it currently consists of 9 shares. Over the 4 years, it seems that the common index has had an upward trajectory in terms of stock market investment. This means a positive activity of listed companies in the structure of the index and also a high interest of investors in trading on the regulated market.

In conclusion, (Markwat, T., 2009, p 33) stock indices have been created so that investors can make investment decisions based on complete and prompt information, enabling them to research and estimate the risks involved in financial investments made in securities listed on the stock exchange.

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Financial Technology (FinTech) as a Driver for Financial Digital Assets

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Abstract

Nowadays, we frequently encounter the term of "digital assets" within the financial market's terminology and media. As this native asset class is maturing, the uncertainty with regards to the underlying value, remains. The cause is clearly the agitated history that transcended the space of cryptocurrencies, which during its evolving stages, created confusion and misconceptions with regards to the purpose and

viability of digital asset classes across various industries.

In order to understand the real potential of digital assets and its underlying technology, it is important to clearly assess and classify this novel assets class, outlining the benefits for all financial actors and institutions, before projecting the future of finance around Blockchain and Distributed Ledger Technology (DLT).

This paper will focus on the evolution of financial digital assets and the impact Financial Technology played in the adoption of novel financial services as a new emerging asset class within the Alternative Investment Spectrum.

Key words: FinTech, Digital Assets, Innovation
J.E.L. classification: G23, F63, E47

1. Introduction

It's important to start with the acknowledgement of Financial Technology (FinTech) Companies which spearheaded the advancements of Blockchain and DLT for various business models and financial services, promoting crypto assets within the digital assets field.

FinTech led a truly disruptive movement in various sectors of the financial and monetary system, from micro payments, remittance and lending, to various types of insurance policies, crowdfunding and asset management. It was this movement that validated new paradigm shifts with the formation of crypto assets (Mehdiabadi et al., 2020).

By means of accessibility and advancements of mobile phone technology, cloud computing, big data analytics and blockchain, new financial services allowed participation for any individual with access to internet to evolve and diversify in a faster, cheaper, more transparent and more efficient way than traditional financial banking services.

2. Literature review

According to the research of Lichtfous et al. (2018) entitled "Can Blockchain accelerate financial inclusion globally?", the remittance and payments industry can be revolutionized with the introduction of blockchain and distributed ledger technologies. Empowering financial inclusion by means of digital currencies, many migrant people can benefit from this progress as the current remittance options have three major burdens: high fees, long settlement times and low usage.

As the interest of this article is towards financial digital assets, it's important to classify crypto assets as new asset class. In this perspective, the research conducted by Lee, DKC., Guo, L., and Wang, Y., (2018) confirmed the allocation of crypto assets within the spectrum of Alternative Investments as they compared the characteristics and specific components of cryptocurrencies to the traditional asset classes by examining the static correlations between them, as well as the dynamic conditional correlations.

The results showed that the Cryptocurrency Index (CRIX), which encompasses the major crypto assets, can be a viable option to help diversify portfolio risks. This portfolio allocation is recommended due to the correlations between cryptocurrencies and traditional finance assets which are consistently low, opposite to the average daily return of the crypto assets, which are bigger than traditional investments. The study concluded that the plots of the efficient frontier illustrate that incorporation of the CRIX significantly expands the efficient frontier relative to traditional asset classes alone.

3. Research methodology

A theoretical research methodology was applied in order to identify various models and trends within the industry, combined with an empirical qualitative approach that was used to validate the findings and conclusions within this article.

The qualitative thematical analysis is necessary for a better understanding of the characteristics and components that define Digital Assets as a Novel Standalone Asset Class.

4. Findings

Mobile Adoption and E-Payments

The mobile industry expanded greatly within the last decade and digital connectivity achieved new milestones as new market players and innovations were introduced. With this expansion, we could see network coverage and internet speeds improve, mobile devices become more affordable and accessible, helping the financial excluded individuals and institutions to find new alternatives (ADB, 2016).

GSM Association which represents the interest of more than 750 mobile companies worldwide, presents within their reports that the year of 2019 was a stepping stone towards a digital future, as the number of mobile money subscribers topped one billion and industry trends showed that digital financial transactions are becoming part of everyday life for more people around the world. (GSMA, 2019).

Digital Identity Systems

All financial institutions within the space know that an extensive compliance process, with Due Diligence (DD), Know Your Customer (KYC) and other identity verification services, is tedious and inefficient, especially with the current data and privacy policies in place.

An alternative came with the improvements of Digital Identity System, where the identity of a user are represented digitally by a set of records. This novel infrastructure makes it easier for companies to intermingle data in a very safe and secure environment. This sector acquired great interest from governments around the world, as FinTechs as working closely with these entities for a proof of concept with regards to biometric ID programs.

According to a Deloitte report (2019), Digital Identity is the representation of the proof of identity in a digital format. Think of biometrics in the form of iris scans, dental records, facial patterns, voice and fingerprints, stored in an encrypted electronic environment, that brings efficiency over the traditional identification processes. These processes can be performed faster, cheaper and more reliable than any existing identification system, which will enable higher financial inclusion.

Currency Digitization

Blockchain along with the Distributed Ledger Technology have introduced new concepts for reducing fraud and counterfeiting, especially within the realm of currencies. These novel ideas and implementations have stirred up the attention of Central Banks around the world, as Digital Currencies have the potential to improve transaction fees, oversight and transparency.

A perfect use can that FinTech adopted in the early stages of development, was remittance services, as blockchain and cryptocurrencies have the potential to facilitate and process small amounts of money with great speeds and low costs.

A massive research is ongoing for Central Banks Digital Currencies as they can remove the costs and fees associated with clearing houses, credit and debit card providers, and banks, thus removing the need for all of third-party intermediaries (Chiu et al., 2020).

Financial Literacy Programs

A better understanding of financial services and offerings can help individuals and institutions see the value of accessing financial world systems.

Ramakrishnan (2012) researched financial literacy from a financial inclusion stand point and he concluded that most of the debt problems start as consequence from the concept that individuals and institutions undertake loans that they can't repay, because of their poor familiarity and interpretation of financial market products, especially risks and rewards understanding, in order to make an informed decision.

Financial education enables everyone to make effective choices and to avoid distress in financial disturbances or crises.

Financial Literacy goes beyond information and financial advice as it plays a major role in the financial well-being towards important financial goals and reduces risks of market failures (Popescu AD., 2019).

Financial Technology Innovation for Digital Assets

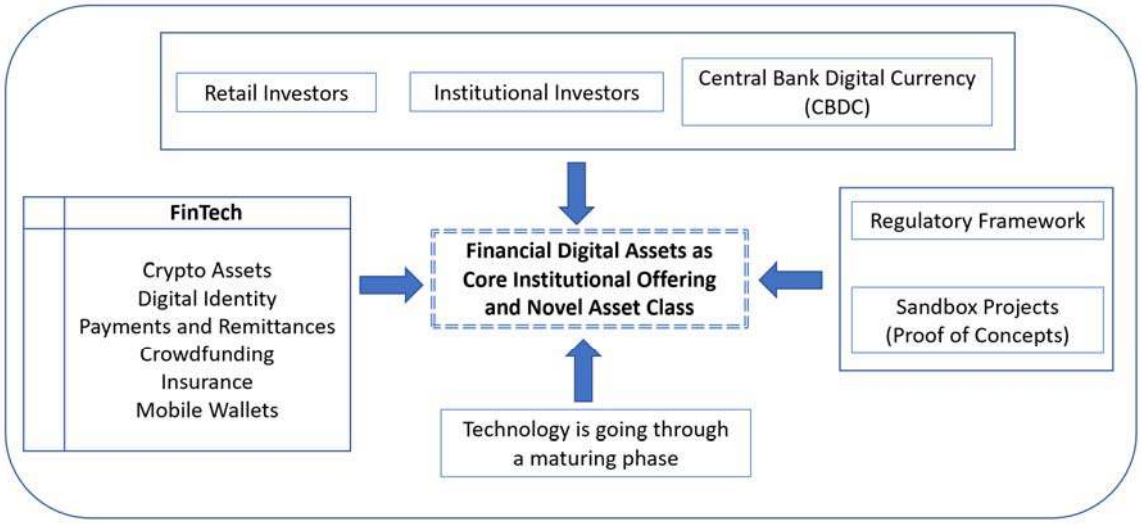
Digital Assets are the latest technologically introduced innovations by means of Blockchain and DLT, that are driving a revolution and new paradigm shifts within Financial Services.

This technology is changing the way we manage and create wealth, along with the interaction between users and money or financial products.

Spulbar and Birau (2019) also researched the implication of Financial Technology as a disruption force, focusing on the banking system which represents a fundamental pillar of the economic growth and macroeconomic stability, especially in the context of globalization.

The banking ecosystem is affected by continuous changing dynamics of the international banking architecture and financial environment, especially when financial digital assets are driving a new value proposition, by providing the option to have the full services of a bank without having any type of intermediaries. With this type of proposition come new type of risks. This being said, clearly the traditional banking system remains a trusted financial player by all participants even if they were to adopt all the new crypto asset classes as custodian.

Figure no. 1 Financial Digital Assets as Core Institutional Offering and Novel Asset Class



Source: Author's contribution

There is much interest within the space by institutional investors, FinTechs and Central Banks, and this is the key factor that drives evolution to the next phase for Financial Digital Assets as a Core Institutional Offering and a Novel Asset Class.

Distinguishing Utility from Securities Tokens

The Swiss Financial Market Supervisory Authority (FINMA, 2018) released, as one of the first regulatory attempts to offer clarity to the crypto sector, a guide where three major categories were established for crypto assets:

1. **Payment Tokens or Cryptocurrencies** – Referring to the main function as means of payment. Here we distinguish cryptocurrencies like Bitcoin, DASH or Litecoin;
2. **Utility Tokens** – Referring to the tokens which have as main purpose, a function or an attribute, that gives rights to a specific application or service. Here we distinguish tokens like Binance Coin, Lisk or Zilliqa;
3. **Security Tokens** – Referring to tokens that entitle, or give rights to its holders, to the underlying assets in forms of dividends or interest payments. These tokens are essentially digital, liquid contracts for fractions of any asset that already has value, like real estate, stocks, equities or any other alternative asset that can be tokenized.

Denominating fractional ownership of a real asset by means of security tokens is an idea that is widely circulated and brings more structure for investors as they can benefit from the transparency, liquidity and immutability that blockchain technology is offering.

FINMA offers as a guideline these type of tokens, but hybrid forms and mixed versions of these categories are possible.

5. Conclusions

Crypto assets, smart contracts, and digital assets in general, have already fundamentally changed the way many people interact with money, manage their wealth, trade on markets, and the invest in different assets. These changes have improved along with the FinTech sector and optimized the way in which people connect with established or emerging markets, providing and even improving the tools for different financial instruments. But blockchain has also brought entirely new asset classes, with new considerations, and new complications.

These advancements and novel interactions of blockchain and DLT, has made it possible for us to tokenize most of the alternative assets we can think of. One major hurdle that requires the attention of all market participants evolves around the taxation and regulations area, which is still under scrutiny.

Our world is a constant evolution and as we progress towards further forms of digitization like tokenization, digital identity, digital ownership, digital assets, today's financial institutions (and not only) will have to adapt. The internet brought a similar wave of disruption that changed dramatically the way we are informed and publish information, with blockchain, financial services may extend as decentralized services and other decentralized financial instruments may become the norm. With the introduction of financial digital assets, the accessibility, efficacy, transparency and availability of investment opportunities will increase dramatically. These new asset classes will fundamentally improve how people, money, financial services and providers are linked.

The tokenization of assets offers promising possibilities for new methods of capital raising. Novel fundraising vehicles, such as STOs, provide a higher degree of regulation and transparency for investors. Further, STO is an efficient and more transparent method to raise capital from a bigger investment pool than it has been possible with traditional fundraising methods. It is, however, still in infancy stage and market adoption will still require some time.

Decentralized Finance (DeFi) promises a new parallel and more transparent Financial Ecosystem as per the Traditional Finance World. We have seen the DeFi progression that spread with a speed rarely seen in any other sectors, across financial industry sectors from payments, to banking, lending, investing, and insurance. There is also transformation within financial institutions as they mutualize data through digitization and standards, share that data and workflow on blockchains and move small elements of business logic into tokens, bringing more efficiency to traditional business models. We are seeing a very intense and emerging ecosystem powered by financial incumbents, FinTechs and Artificial Intelligence (AI) companies that focus their research on decentralized autonomous digital financial assets.

While it's true that FinTech organizations are disruptive, there's more to the equation. When they choose to combine forces, banks and FinTechs can create new financial products and channels that better serve existing clients and help expand outreach.

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Annual Financial Statements – The Most Important Documents for Economic Entities in Romania

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Abstract

The annual accounts have the role of providing information to the stakeholders. The essential requirement of financial statements refers to the reflection of a true and fair view of the patrimony existing at a given time, and of the movements of its elements, for a given management period, respectively in a financial year as well as the results obtained during this management period. In this paper, we set out to present the annual financial statements, which are the most important documents for each and every company. The objectives pursued in the research focus on the functions, importance and role of annual accounts. The annual accounts/annual financial statements represent the main channel of communication between the producers of accounting information and stakeholders.

Key words: annual accounts, stakeholders, synthesis documents, enterprises, financial-accounting information.
J.E.L. classification: M40, M41

1. Introduction

The annual accounts are very important because they inform both managers and stakeholders about the economic and financial situation of the company. These synthesis documents represent the basic information source for making any financial diagnosis.

For each company, the annual accounts have the role of providing true information both about the patrimony and about the results obtained in the same management period.

Based on this information, the managers substantiate their decisions, they will take the best measures both organization, management, and improvement and development, contributing to the maintenance and success of the enterprise on the competitive market. For stakeholders, this information has a special impact, knowing at any time the current situation of the enterprise.

2. Literature Review

The annual accounts represent the main communication channel between accounting information producers and stakeholders and, at the same time, being „ created by economic practice, the documents of synthesis and accounting reporting represent the prelude to a reaction of users, being the quantitative and qualitative expression of equilibrium value relations in patrimony management " (Dănescu, 2000, p. 56).

The annual accounts provide information about the economic and financial situation of an enterprise, used by managers to carry out the activity in the best conditions. Their role is to provide information to the stakeholders they represent „the most important synthesis document, which ensures the centralization and generalization of data of economic agents and public institutions in a systematic and unitary form, which it allows an overview, a detailed analysis and a control of the activity carried out and the results obtained at the end of each management period" (Avram et al., 2017, p. 115).

The annual accounts include:

- The balance sheet describes the financial situation of an enterprise, through its components: assets, liabilities and equity. The asset is a resource controlled by the enterprise, generated by past events, from which it is expected that future economic benefits will be obtained. Debt represents "current obligations of the entity, arising from past events, the settlement of which is expected to result in an outflow of resources that incorporate future economic benefits" (Munteanu et al., 2020, p. 100). Equity represents in fact the right of owners to the assets of an economic entity, after deducting all debts.
- The income statement consists of expenditures, respectively losses and revenues, respectively incomes. Revenues is the surplus of economic benefits realized during a year, materialized in surplus of assets or deficit of debts, which determine surpluses of equity other than the contributions brought by the owners. Expenditures are reductions in economic benefits resulting during a financial year, materialized in deficit of assets or surplus debt, which generate decreases in equity other than allocations to owners.
- The change in equity statement represents the document through which can be researched both the equity's power of preservation, and the enterprise's benefit.
- The treasury chart shows the cash fluctuation as well as its equivalents. Cash inflows and outflows are important elements in measuring the performance of enterprise.
- The explanatory notes are mandatory for economic entities, except for micro-enterprises that draw up abbreviated financial statements.

Internal and external users or, in other words, stakeholders, know the performance of the entity by studying the statements designated by the generic name of accounting statements, but because the information they provide is financial, the commonly used name is financial statements.

3. Research methodology

The research method used is based on analysis, observation, and study and, of course, the interpretation of information obtained from materials and specialized books on annual financial statements.

4. Findings

4.1. The role of annual accounts

Annual accounts have a particularly important role, both for managers where information is synthesized and for stakeholders. The financial-accounting statements are part of the category of official accounting documents that can be admitted as evidence in court and used for the exercise of control and analysis of entity's assets and activity. We consider the financial-accounting statements represent the basic information source for making any financial diagnosis.

The importance of annual accounts, as synthesis accounting documents, is highlighted by the following aspects:

- "It constitutes a means of knowledge, control and analysis of the activity of enterprises for the boards of directors, shareholders, fiscal bodies, etc.;
- the information they contain refers to both the current and the previous year, ensuring the analysis of their evolution from one management interval to another;
- the information they provide represent the basis for numerous decisions on current and, in particular, forward-looking activity of an entity;
- it is a mobilizing factor for the improvement and organization of the accounting records' content, which must ensure the necessary data, exactly and in time, in order to elaborate them properly and on time "(Staicu et al., 2002).

Financial statements play their part in providing true information when they meet certain requirements.

The essential requirement of financial statements refers to the reflection of a true and fair view of the assets existing at a given time, and of the movements of its components, in a certain management period, respectively in a financial year, and of the results obtained in the same

management period. The presentation of information is made according to a unitary system, according to methodological norms that ensure the correct and comparative analysis of the company's activity and centralize the necessary information. The simple and fair character allows the easy understanding and appreciation of the information. Also, the financial statements must be complete, i.e. contain all the required forms, and they must be completed with all the indicators they contain. Another requirement the financial statements must meet is the observance of the methodology for determining the indicators and the correlation between them. The annual accounts must be prepared and presented at the date set, ensuring the management, monitoring and analysis of the entire activity carried out by the entity efficiently, operatively and centralizing the information on time.

The financial statements contain useful information, both for the producers of accounting information and for their users, and we consider that they have a triple role, respectively:

- explanatory - allow the explanation of different aspects of business practice and accounting practice;
- regulatory - ensures the evaluation of the business;
- forecasting - facilitates the identification of solutions for new problems in the field.

The annual financial statements are elaborated under the responsibility of the enterprise's management, having a general character and satisfying the needs of several user groups, which derives from the functions assigned to these annual synthesis and reporting accounting documents.

4.2. Functions of synthesis documents

According to Ristea (1989, pp. 14-15), the functions are the following:

- reflection and generalization;
- control and analysis;
- instrument of economic-financial balance;
- settlement of the patrimony.

The functions of synthesis documents are explained by the specialists in the field from the perspective of the place they occupy in the process of knowledge and information presented in Figure no. 1.

Figure no. 1. List of functions



Source: own projection

1. The function of generalization and centralization of accounting data is one of the final stages of their processing. Information must follow an upward path, from simple to complex, from particular to general, materializing in a system of economic and financial indicators that are necessary for reflecting the common features of the patrimonial elements, advanced and consumed in the economic-financial circuit.

2. The information function foreshadows the place and role of synthesis documents in the information system, providing technical details that meet the internal information needs of business management, but also the external information requirements through the system of economic and financial indicators made available. In terms of this function, accounting products must be in line with reality, accurate, correlated, and comparable, but, of course, mandatory and legal.

3. The control and analysis function is manifested both in the process of researching and explaining the following:

- fulfillment of the planned objectives regarding the employment and use of the patrimonial delimited capitals;
- determination of deviations from the provided economic-financial indicators;
- establishing the measures and decisions of the activity.

4. The forecasting function implies a processing and a capitalization of the indicators presented in the annual financial statements, as a foundation for planning future decisions. The substantiation of efficient tactical and strategic decisions is based on the analysis of economic and financial indicators made in the past and present. The post-factual representation of the activity is the necessary premise for establishing predictions regarding the evolution of economic phenomena.

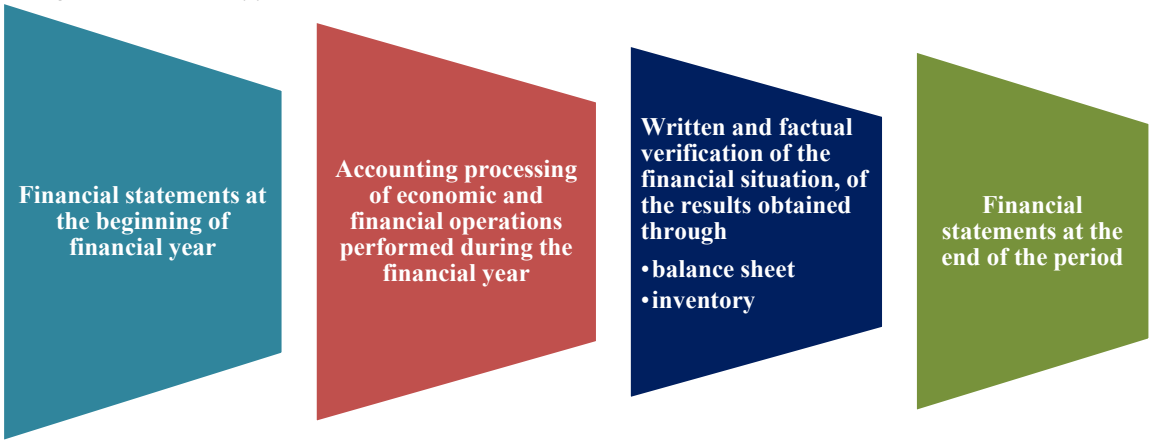
The specialized literature specifies the methods used to establish business trends, based on retrospective information from financial statements. Through the forecasting function, annual forecast financial statements are obtained, which, by means of their content, provide the information necessary to draw up the financial statement, related to a future management interval.

5. The function of instrument of economic-financial balance "is manifested in the knowledge, orientation and mastery of the balance sheet relations between assets and liabilities, between expenses and revenues" (Staicu et al., 2000). The economic-financial balance must be monitored and regulated, both dimensionally and structurally, and reflect the state of affairs of the economic entity.

6. The settlement of patrimony function is performed at the closure of the financial year. In this regard, we consider that, for reasons of simplification and facilitation of the understanding, the annual financial statements are used as a tool to justify the recovery of expenses from revenues or funding allocated for this purpose, as well as to establish the material responsibilities and interests in ensuring the relationship of conservation and growth of patrimony.

Returning to the importance it represents, both in accounting practice and in theory, through the functions they perform, we consider that the accounting documents of synthesis and reporting called financial statements find their place in the accounting cycle presented in Figure no. 2.

Figure no. 2. Place of financial statements



Source: own projection

The functions of these synthesis documents are mutually interdependent. Without the manifestation of the functions of generalization, centralization, information and control and analysis, it would not be possible to achieve the function of economic forecasting.

5. Conclusions

The continuous ranking, undergoing a permanent change determined by the economic and social reality, of the users' needs had as effect an evolution of the accounting synthesis and reporting documents accordingly, the latter being needed to generate an information system necessary to satisfy the requirements imposed by stakeholders.

The annual accounts have a special impact on the enterprises because they provide information about their economic-financial situation, offering the possibility to the managers and stakeholders to decide as well and safely as possible on the progress of the enterprises.

In conclusion, the annual accounts represent the main channel of communication between the producers of accounting information and stakeholders.

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The Impact of COVID-19 on Romanian SMEs

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Abstract

In the context of the COVID-19 pandemic, all countries are facing a sharp economic recession. Small and medium sized enterprises (SMEs) are severely affected and thus the involvement of the state in the economy is inevitable. The purpose of the paper is to analyze the impact of coronavirus outbreak on Romanian SMEs. The research explores the literature regarding economic strategies and model in recession times. Also, based on descriptive analysis methodology, the status of SMEs in the 42 counties of Romania corresponding to NUTS 2. The paper can be considered a useful viewpoint in understanding the impact of COVID-19 on Romanian SMEs.

Key words: Coronavirus crisis, SMEs
J.E.L. classification: G32, O52

1. Introduction

The "lockdown" effect, with partial or total closure of some economic activities and the distancing or isolation of people has been generated high economic and financial costs. The reorientation of the activity of some enterprises (towards goods needed in the context of the pandemic), telework and the intervention of public authorities with supporting funds for SMEs are measures to attenuate the negative impact of COVID-19 pandemic, but the economic activity is dominated by a certain fragility and a considerable level of uncertainty.

The novelty of the paper is given by the fact that this paper analyzes the status of Romanian small and medium enterprises (SMEs) and explores the impact of COVID-19 on Romanian SMEs creating an initial viewpoint based on descriptive analysis methodology.

The paper is structured as follows: Section 1 briefly describes the literature review regarding the impact of coronavirus crisis on businesses. Section 2 presents the status of Romanian SMEs in terms of legislation, Section 3 provides information about the registration and deregistration of SMEs in Romanian counties, while the last section brings the main conclusions and the implications for development policy.

2. Literature review

In the light of coronavirus outbreak, the firms are facing new challenges in terms of financial constraints and have to adopt new business models. This line of research is new, but we can identify several pioneering papers analyzing the business environment under the impact of COVID-19. Wenzel et al. (2020) highlight that the competitive landscape of SMEs was negatively affected by coronavirus crisis. The firms are facing a decline in the demand of goods and need to adopt new costly processes (Amankwah-Amoah and Syllias, 2020). The pandemic has generated a demand and supply shock, many businesses looking for government support (subsidies, tax relief) and other financial and non-financial support (Cook & Barrett, 2020).

In Romania, the main challenge that non-financial companies faces is represented by the management of the effects produced by COVID-19 pandemic. In the context of the COVID-19 pandemic, almost a quarter of the companies were affected by reduced sales. Unlike SMEs, which have been affected to the greatest extent by declining sales by more than 75 percent, most corporations (61 percent) have registered a decrease of sales reductions by less than 25 percent. At the sectoral level, the turnover of companies from agriculture, construction and real estate was less affected, while at the opposite pole are the companies from services and utilities sectors. At the level of trading companies, exporters have suffered more from the pandemic, since half of them registered a decrease of sales higher than 50%, during the emergency period. Of the companies that import goods, 40 percent had registered more than 50% decrease of sales during the peak restrictions (NBR, 2020). The declining exports and imports took place mainly as a result of the decrease in demand for products from two groups: machinery and transport equipment, groups that have an important share in the structure of both trade flows.

The most common measures taken by companies to overcome the negative effects of the pandemic on their business, at the aggregate level, are: the reduction of the activity, the suspension of the activity or the technical unemployment of employees. On the other hand, the least popular measures are: the application of the insolvency procedure or judicial reorganization procedure, suspension of the bank payments or dismissal of the employees. It is recognized that corporations were more proactive, compared to SMEs, in taking measures to reduce the negative effects of the pandemic. Therefore, corporations have resorted to the telework regime for some or all employees, while in the case of SMEs, only a small percent had the infrastructure needed to use this solution.

3. Legal overview

The legal framework in Romania for SMEs is complex and started to be developed of the beginning of '90s based on harmonization with the European Union and international legislation. Law no. 31/1990 on companies (republished) gives the main legal framework on Romanian companies, establishing Agricultural Cooperatives (AC), European Economic Interest Group (EEIG), Economic Interest Group (EIG), Family-Owner Business (FOB), Individual Enterprise (IE), Authorized Natural Person (ANP), Autonomous Administration (AA), Joint Stock Company (JSC), Cooperative Society (CS), Limited Partnership (LP), and Limited Liability Company (LLP). The legal framework is supplemented by a multitude of other normative acts such as: (i) Law no. 346/2004 on stimulating the establishment and development of small and medium enterprises, amendment and completion by the Law no. 346/2004; (ii) Law no. 1/2005 regarding the organization and functioning of the cooperation; (iii) Decision no. 1065/2010 for the approval of the Framework Agreement between the Government of Romania and the Swiss Federal Council on the implementation of the Swiss-Romanian Cooperation Program aimed at reducing economic and social disparities within the enlarged European Union, signed in Bern on September 7, 2010; (iv) Commission Regulation (EC) No 1407/2013 of 18 December 2013 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid; (v) Emergency Ordinance no. 10/2017 to stimulate the establishment of new small and medium enterprises; and (vi) Law no. 112/2017 regarding the approval of the Government Emergency Ordinance no. 10/2017 to stimulate the establishment of new small and medium enterprises.

The normative framework in the conditions of COVID-19 was completed with a series of normative acts, respectively 39 normative acts of primary level, 12 normative acts of secondary level, and 75 tertiary level normative acts.

The main legislative measures that have had an impact on the way in which public authorities, institutions and entities with special responsibilities have used the public funds allocated for this purpose can be grouped into the following categories: 1) Legislative measures adopted in the field of public procurement; 2) Legislative measures adopted in the field of health; 3) Legislative measures adopted in the field of labor and social protection; 4) Legislative measures adopted in order to ensure the support of the economy; 5) Legislative measures aimed at general actions to limit and control the spread of the pandemic with COVID-19.

The legislative frameworks with significant impact on SMEs are the following (Coalition for the Development of Romania, 2020):

- Emergency Ordinance no. 29/2020, subsequently amended and supplemented by Emergency Ordinance no. 42/2020, considered to prevent the spread of COVID-19 virus and limit its negative effects through a series of measures that targeted the public health sector, as well as measures to limit the negative effects caused by the limitation or interruption of socio-economic activities.
- Emergency Ordinance no. 30/2020 clarified some aspects regarding some days off to the parents for the supervision of the children, in the situation of the temporary closure of the educational units. For staff that cannot benefit from days off, financial incentives are provided. At the same time, new social and salary benefits are introduced for the emergency period.
- Emergency Ordinance no. 33/2020 aimed at stimulating the payment of due tax obligations, taking into account the needs of financing budget expenditures, by granting payment bonuses for taxpayers who have the financial capacity to pay corporate income tax / income tax to micro-enterprises. At the same time, in view of the need for medicines, protective equipment, other devices or medical equipment and sanitary materials that can be used in the prevention, limitation, treatment and control of COVID-19, a postponement of the customs payment of VAT has been made to support economic operators who import such goods.
- Emergency Ordinance no. 37/2020 created facilities for the payment of installments and interest due for loans to debtors, individuals, Family-Owner Business, Individual Enterprise, Authorized Natural Person, Autonomous Administration, small and medium-sized enterprises and NFIs.
- Government Decision no. 268/2020 regarding the amendment of Government Decision no. 807/2014 for the establishment of state aid schemes aimed at stimulating investments with major impact on the economy.
- Government Emergency Ordinance no. 48/2020 on some financial-fiscal measures considered the extension of the income tax deduction of micro-enterprises and sponsorships made according to law, to public institutions and authorities, including specialized bodies of public administration, to ensure the necessary resources to finance public institutions, in mainly in the social and medical field.

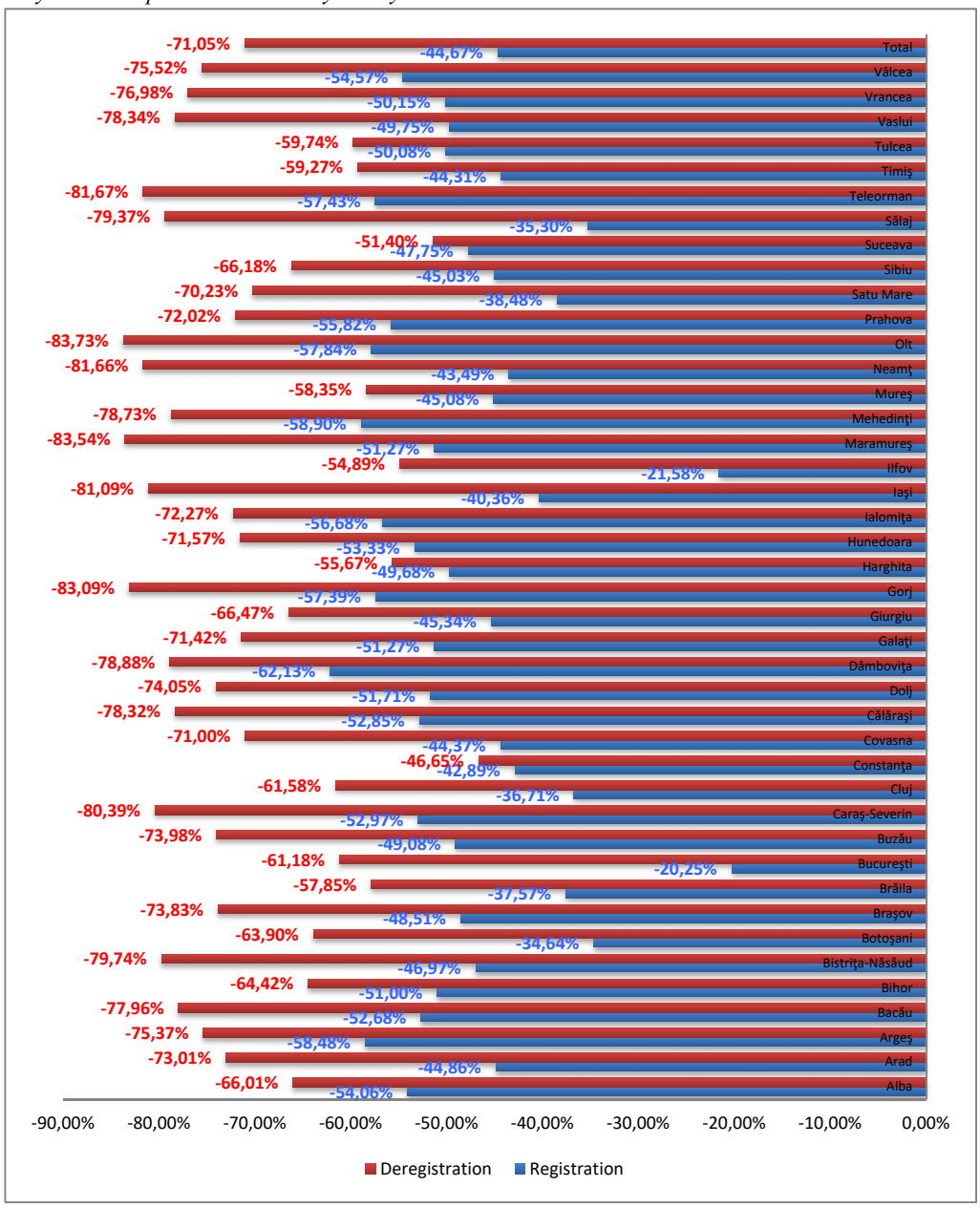
4. Empirical evidences of SMEs in Romanian counties

Analysts assess the current state of the economy as given the limited capacity of the Romanian supply to cover the surplus of domestic demand, imports maintained a robust growth rate, their unfavorable footprint on the trade balance being doubled by the modest course of exports, affected by the prolongation of international tensions. This pattern of economic growth has been accompanied by a deepening of the budget deficit and the external one, thus accentuating the question marks regarding its sustainability.

However, the challenges to the economy intensified with the onset of the COVID-19 pandemic in the first months of 2020. The supply shock caused by the measures of isolation and social distancing intended to flatten the epidemic curve materialized in the appearance of syncope in supply-production chains, affected the activity in multiple fields (NBR, 2020). From a demand perspective, beyond the emotional amplification, for a short period of time, of the purchase of essential goods, the shock wave associated with the rapid spread of the epidemic has the potential to cause longer-term changes in the behavior of all actors in the economy (NBR, 2020). Thus, at the level of internal absorption, the adjustment of wage incomes (as a result of the decision taken by many companies to send their employees into technical unemployment or to close the business) eroded consumer demand and fueled the sharp deterioration of public confidence, with possible consequences and at the level of investment inclination. At the same time, the turmoil in the activity of the corporate sector and the inherent uncertainty on the future evolution of the business climate are likely to discourage capital accumulations among companies. The mobilization of important budgetary resources to cover the social needs and support of the affected companies is done at the cost of a slowdown in public investment. At the same time, external trade in goods and services has lost intensity both on the export side (as a result of the restriction of the activity of the main trading partners, with a direct effect on the local manufacturing sector and on freight transport services) and on imports with the adjustment of the internal absorption, but also of the demand of inputs for the manufacture of the

products with external destination.

Figure no. 1. Dynamics in Registrations and Deregistration of SMEs over the period of time January – May 2020 compared with January – May 2019 in Romanian counties



Source: computed by authors using database of National Office of the Trade Register (2020)

Figure 1 presents the Dynamics in Registrations and Deregistration of SMEs over the period of time January – May 2020 compared with January – May 2019 in Romanian counties.

According to Figure 1, there was a decrease of approximately 45% of registered companies in National Office of the Trade Register and main reason for such a decrease is just COVID-19 pandemic. Over the period of March 16 and May 14, 2020, all activities in Romania were lockdown. Of the 42 counties, including Bucharest, 20 of Romania's counties show a decrease of over 50% in the number of companies registered in the comparative period, these being Vâlcea, Vrancea, Tulcea,

Teleorman, Prahova, Olt, Mehedinți, Maramureș, Ialomița, Hunedoara, Gorj, Galați, Dâmbovița, Dolj, Călărași, Caraș-Severin, Bihor, Bacău, Argeș and Alba. The smallest decreases are registered in Bucharest, with respectively 20.25%, and in Ilfov, with respectively 20.25%. These two counties are also those that form one of the eight development regions of Romania, corresponding to NUTS 2, respectively the Bucharest-Ilfov Region, which is also the most developed in the country.

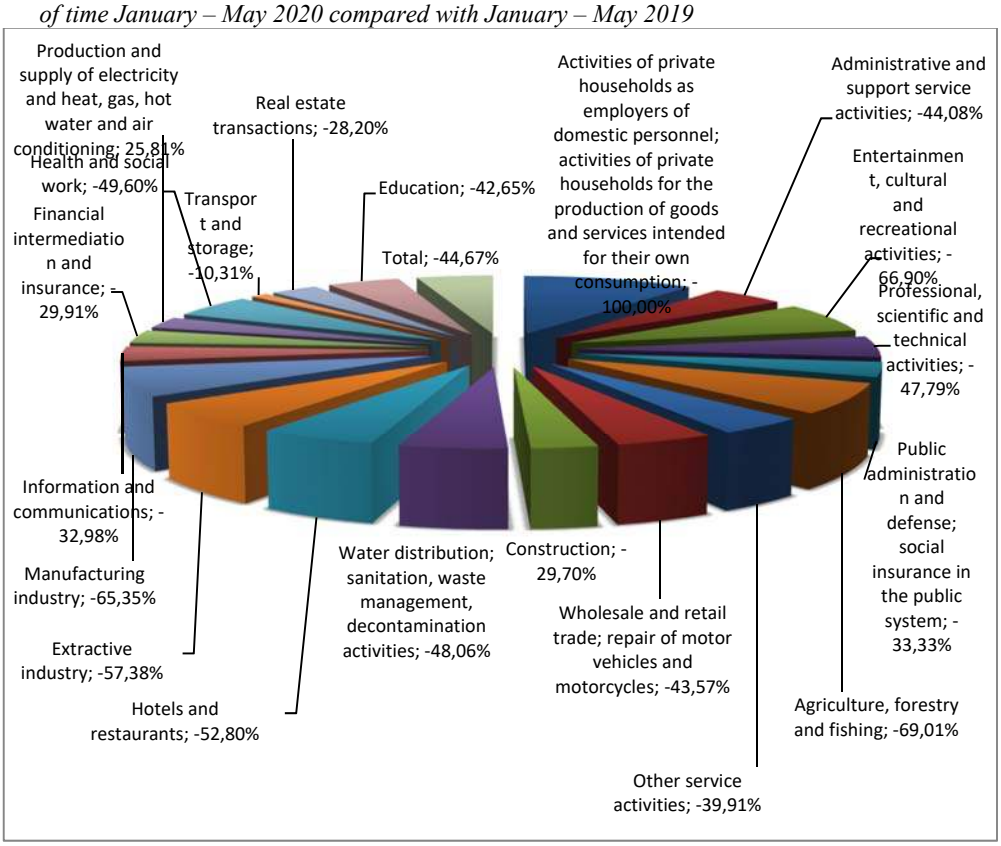
Regarding deregistration of SMEs was significantly lower compared to the same period of the previous year, respectively a decrease of approximately of 71%. The low rate of deregistration is justified by state intervention with financial support of companies in difficulty due to the COVID-19 pandemic. The best-positioned counties with a percentage of over 80% are Teleorman, Prahova, Olt, Neamț, Maramureș, Iași, Gorj, and Caraș-Severin.

The highest gap between registered and deregistered companies is in Buchares, Iași, and Sălaj. This gap must be interpreted as the best positioning in the management of small and medium enterprises.

The evolution of small and medium enterprises by classification of activities in the national economy can be seen in Figure 2.

According to Figure 2, based on classification of activities in the national economy, the highest gap is registered for activities of private households as employers of domestic personnel; activities of private households for the production of goods and services intended for their own consumption, where there is a decrease of 100%. Entertainment, cultural and recreational activities registered a decrease of approximately 67%, manufacturing industry of 65.35%, Agriculture, forestry and fishing of 69.01%. The best positioned is transport and storage, which determined a decrease compared to the same period of the previous year of only 10.31%. The most companies were registered in the field of Wholesale and retail trade, repair of motor vehicles and motorcycles (8667), but nevertheless there was a decrease in this field compared to the same period of 2019 of 43.57%.

Figure no. 2. Registrations of SMEs by classification of activities in the national economy over the period of time January – May 2020 compared with January – May 2019



Source: computed by authors using database of National Office of the Trade Register (2020)

A large number of companies registered between January-May 2020 are in the field of Construction with 5155 companies and a decrease of 29.70% compared to the previous year. Investments in construction objectives increased by more than 25%, in the context in which, in addition to prolonging demand pressures, this sector benefited from incentives in terms of labor market regulations (setting a consistent minimum wage threshold, granting scaling facilities and relaxation of employment conditions outside the Community). Thus, the construction of buildings has expanded by almost 40%. The constructions with industrial-logistical destination were maintained on a robust trajectory, although the new delivered surfaces did not accumulate the record level from the previous year. However, the evolution of this segment - which has a high potential, given the low stock of modern spaces available to Romania compared to other countries in the region - continues to be hampered by the insufficient development of transport infrastructure.

The most affected sectors by COVID-19 pandemic were HoReCa (76%), Transport and Logistics (69%), Production (64%) and Services (63%).

The SME INVEST ROMANIA program, approved by Emergency Ordinance no. 29/2020, establishes that the Romanian state guarantees 80% or 90% of investment loans and credit lines related to working capital contracted by micro, small and medium enterprises and will benefit from grants for the payment of interest and commissions up to 800,000 of euros each.

The budget of the state aid scheme is 781 million lei (161 million euros), and the maximum guarantee is 15 billion lei (3.1 billion euros), with the maximum duration of financing of 6 years in the case of investment loans and 3 years in the case of working capital loans. Loans / lines of credit for working capital can be extended for a maximum of 3 years. The maximum value of loans / credit lines for working capital financing is 5 million lei, and for investment loans, the maximum value of financing is 10 million lei. Also, the cumulated loans granted to a company will be within the total limit of 10 million lei.

Ensuring the continuity of the activity of SMEs, companies and companies in the private sector was achieved through measures on technical unemployment, respectively:

- Regulating the conditions for achieving technical unemployment during the state of emergency and ensuring the necessary funds to support it from the unemployment insurance budget;
- Regulation of tax measures and benefits for employees whose individual employment contracts have been suspended during the state of emergency, at the initiative of the employer, as a result of the effects produced by COVID-19, such as: (i)the calculation by the employer of the calculation, withholding and payment of income tax, of the state social insurance contribution and of the social health insurance contribution related to the indemnities from which they benefited; (ii) taking into account the period of suspension of employment during the state of emergency established by law, when establishing the contribution period of at least 12 months in the last 24 months prior to the date of registration of the application for unemployment benefits; and (iii) recognition of the period of emergency, in which the individual employment contracts were suspended and for which the employers did not owe the insurance contribution for work, as an internship assimilated in the unemployment insurance system.

Romanian Court of Accounts (2020) states that at the end of the state of emergency (May 13th, 2020), out of the total number of 54,498 SMEs that applied for financing under the SME Invest Romania Program, a number of 11 applications were approved by banks, for which the National Guarantee Fund Loans for Small and Medium Enterprises (NGFLSME) concluded 3 guarantee contracts, related to the application of 2 SMEs. Out of the total of 64,282 SMEs that have applications/requests registered at the National Credit Guarantee Fund for Small and Medium Enterprises on June 25th, 2020, a number of 5,488 applications were approved by banks, representing a percentage of 8.5%. At the same time, out of the number of applications approved by banks, NGFLSME issued 1,451 guarantee contracts, representing a percentage of 26.4% of the applications approved by the bank, for a number of 1,418 SMEs. Until June 25th, 2020, guarantee contracts amounting to 588,379 thousand lei were issued, representing a percentage of 3.9% of the ceiling of 15 billion lei. The largest share of SMEs that applied for financing was registered until May 13th, 2020, the date of completion of the state of emergency. Between May 13th and June 25th, 2020, the number of SMEs that applied for financing increased by 18%, while the number of guarantee contracts issued by NGFLSME increased from 3 to 1,451 guarantees. Although NGFLSME concluded agreements with 22 credit institutions participating in the State Aid Scheme through the

SME Invest Romania Program, only 2 complied with their obligation to submit information on loans guaranteed under the SME Invest Romania program until May 31st, 2020.

5. Conclusions

The COVID-19 context has led to important changes in the evolution and financial performance of SMEs, so that the economic recovery requires a concerted effort by national and international authorities. In the case of Romania, it is necessary to introduce the Institution of the credit mediator for SMEs to identify problems, regarding legal, economic or bureaucratic issues, that provide solutions to SMEs for obtaining financing from banks and to notify the Government in case of major problems related to business lending. Given the limited fiscal space existing before the pandemic, the financial resources provided by the EU is a remarkable opportunity, whose values involve the identification of viable projects that can contribute to a sustainable economic recovery.

At the national level, there is a necessary program for quick access to cash (e.g., 10,000 - 15,000 euros) for SMEs that can be used only for an SME urgently needs (to not close the company), such as salaries, rents, utilities, health expenses in work or adaptation to telework. The loan under consideration should be reimbursed the entire amount without any interest.

6. Acknowledgement

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Financial Market Reactions to the Political Uncertainty. Study Case: Romania

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Abstract

The goal of this paper is to identify the influence of the economic policy and political uncertainty on the Romania stock market. We used the Bollinger Bands set at two standard deviations and Bollinger Bandwidth Indicator in order to emphasize volatility. By applying technical indicators on the BET-XT index between 2018 – 2020, the findings show that political uncertainty influences the index evolution. Our study shows that the magnitude of the impact of policy measures is stronger than the impact of events such as presidential, local or European parliamentary elections, cabinet formation and dissolution. The study reveals an asymmetry of the index volatility, in the sense that unexpected "shock" type events with negative impact determined a much higher volatility. The SPSS analysis reveals the indirect correlation between the number of COVID-19 daily registered cases in Romania, as major panic factor at the beginning of the pandemic, and the BET-XT evolution.

Key words: political uncertainty, volatility, financial market, BET-XT
J.E.L. classification: G10, G14, G18

1. Introduction

In this paper, we focus on the effects of political uncertainty on the Romanian financial market, considering the major political events that have dominated the period 2018-2020, including the supporting measures of the authorities to decelerate the COVID-19 pandemic influence to some activity sectors. The reference period was dominated by the election opportunism and political struggles, being expressed by significant deviations from the Maastricht convergence criteria with the Euro Area. Given the multiple frictions of the political framework, Romania registered a setback in terms of nominal and real convergence criteria, being subject to the Excessive Deficit Procedure as result to the government deficit level (4.3%), well above the reference value of 3% of GDP. Driven by the mirage of the unsustainable expenditures in election times, Romania was plunged into the health crisis politically and financially unprepared, being marked by major imbalances.

In the period considered for the analysis, Romania was scene for significant socio-political events which generated different reactions on the financial market, being outlined through both Bollinger Bands and SPSS research methods. The major downturn of the BET-XT index was defined by the overlap of the political crisis with the sanitary one, at the beginning of the pandemic when the government Orban was dismissed by motion of censure. The uncertainty political context, doubled by the negative economic evolutions, represented the premises for triggering an unprecedented crisis whose start was lost due to the political ambitions. We have extended the analysis to the COVID-19 health crisis in order to address the main influences of the political decisions engendered by the government for some affected sectors, starting from a two-way relationship between political and economic factors: the economic context is influencing the citizens voting behavior, while the political actors are influencing the economic development by the power of law.

In order to explore these sequencies of data, we have test the research hypothesis according to which there was an indirect correlation between the number of COVID-19 daily registered cases in Romania and the BET-XT evolution on March 2020, as the major panic indicator on the financial market. We have used the daily BET-XT index (closing values) and COVID-19 related data in order to find the correlations between the BET_XT and COVID_19 variables. The results were consistent in terms of investors sentiment associated to the political context, being included the impact of the emergency ordinances for the investor's attitudes in relation with some specific activity sectors affected by the COVID-19 pandemic.

2. Literature review

This paper focuses on the main effects of political uncertainty on financial markets, examining how political factors may influence the risk levels of the assets traded on the Bucharest Stock Exchange (BSE). Considering the findings of Pantzalis et al. (2000) that emphasize the growth of the assets valuations two weeks before the general election process, we will analyze the election procedure in Romania and its impact on the financial market. The same hypothesis suggests that during the mentioned period, the political uncertainty significantly decreases, leading to an opposite phenomenon on the stock market. Moreover, Goodell & Vähämaa (2013) advanced the idea that "changes in firms' investment behavior will also affect investors' attitudes" (p. 1108), considering that during uncertainty times caused by political factors companies reduce their expenditures.

The election preference polls have also direct impact on the stock market volatility, as suggested by Gemmill (1992) in his research study about the British parliamentary election (1987), establishing a significant relationship between the FTSE 100 index and the opinion polls in favor of the Conservative Party. When neither of the candidates has a leading position in the voting preferences, there is an increase of the financial market uncertainty before elections (Li and Born, 2006), as reflected in the stock prices indicator. Political and economic interferences are reinforced by the theory of political business cycles (Nordhaus, 1975; Hibbs, 1977) which are driven by opportunistic politicians trying to influence the voters through periods of GDP growth rates during the election campaign, followed by an inflation-curtailing contraction after the election moment.

Major political shocks were analyzed in order to highlight the causal effects transmitted across the capital market, the political events of the period 2018-2020 providing a rich pool of comparison for the investment decisions on BSE. The political risks experienced by the investors were considered consistent signals for the stock indices trajectories, with a special focus on the Bucharest Exchange Trading Extended Index (BET-XT).

At the moment, the volatility forecast and the appropriate risk management procedures are in-depth investigated, using a wide range of models like ARMA and EGARCH (Bollerslev, 1986), QGARCH(1,1), GJRGARCH(1,1), GARCH(1,1) and Random Walk (Franses and Djik, 1998), Random Walk, ARMA and GARCH-M (Harque et al., 2004), etc. Focusing on the Bucharest Stock Exchange activity, Panait and Slăvescu (2012) have used the GARCH-in-mean model, calibrating it with monthly, weekly and daily series of data. Three Bucharest Stock Exchange indices (BET, BET-XT and BET-C) were considered by the authors in order to achieve the main results: the monthly conditional volatility tends to revert more rapidly to the long term average than the conditional volatility form daily and weekly time series of data. On the same extent, the conditional volatility on the weekly time series tends to revert more rapidly to the long term average than the conditional volatility from daily series of data.

The evolution of BSE representative indices in the period 2014-2017 was also analyzed by Vasiu (2017), emphasizing the main political changes: the presidential elections, the local elections, the ministry reshuffle and several Governments dissolutions, alongside with street protests and Colectiv crisis. The same author marks the health crisis effects on the Romanian financial market, studying the COVID-19 impact on BSE and the "economic symptoms" of the crisis, in a tense political context (Vasiu, 2020). The political prerequisites of the pandemic crisis for Romania suggest that "like patients at risk, Romania had already some «meaningful comorbidities» when it became infected with COVID-19" (Vasiu, 2020, p. 259): three social-democratic Governments during only three years, widespread street demonstrations and civic protests caused by the emergency ordinance amending the laws in the field of justice, major fiscal measures that affected the business environment

and a transitional Government at the beginning of the COVID-19 crisis, which substantially underestimated the magnitude of the pandemic effects. Moreover, the economic framework in 2019 was also underperforming, with one the highest inflation rate from the European Union and the largest budget deficit.

3. Research methodology

In this study we focused on the period of 2018 – 2020, which was marked by important political events, such as the European parliamentary elections (May 26, 2019), the presidential elections (on November 10-24, 2019) and local elections (September 27, 2020). In addition to current political events, we have also studied unexpected political events such as censure motions. In this period there were four censure motions, two of them caused the dissolution of the government in office: October 10, 2019 – the fall of the Dancila' s government and February 5, 2020 the fall of Ludovic Orban's government. Important normative acts adopted by the government in the mentioned period such as Emergency Ordinance 114 (December 2018) and subsequent amending acts or the sanitary and economic crises determined by the Covid pandemic (2020) make object of this paper in order to see if they had an impact on the capital market evolution in terms of volatility.

The data used in this study are represented by the BET-XT index daily quotations, between January 2018 and November 2020. BET-XT represents the Bucharest Exchange Trading Extended Index, which was launched in July 2008 and includes 25 of the most traded companies from Bucharest Stock Exchange, including the financial investment companies. The SPSS analysis revealed a negative correlation between the BET_XT and COVID_19, being used to test the research hypothesis according to which there is an indirect correlation between the number of COVID-19 daily registered cases in Romania and the BET-XT evolution on March 2020, as the major panic indicator on the financial market related to the COVID-19 news.

In order to analyze the effects of the policy and political uncertainty on the capital market we applied technical indicators that reveals the volatility of the index. Bollinger Bands is a technical indicator developed by John Bollinger in 1980, representing bands drawn in and around the price on a chart. The bands are composed of a middle simple moving average, usually of 20 periods and two bands (upper and lower band). The width of the bands is a measure of volatility called standard deviation. The upper and lower bands are drawn at a distance of two standard deviations from the average.

Upper band = Middle band + 2 standard deviations
Middle band = 20 period moving average
Lower band = Middle band – 2 standard deviations
(Upper BB – lower BB) / middle BB

Due to the fact that standard deviation is a measure of volatility, the bands get larger in times of higher volatility, and squeeze when the market is less volatile. Approximately 90% of the price action occurs between the upper and the lower bands. A break from the bands occur in general after a major event. The Bollinger Band Width Indicator emphasize the periods of low volatility that generate periods of high volatility. Vice versa is available meaning periods of high volatility generate periods of low volatility.

4. The effects of economic policy and political uncertainty on the BET-XT index between 2018-2019

From the political point of view the year 2018 began with a significant turmoil within the ruling party. The Social Democratic Party withdrew political support for the Prime Minister Mihai Tudose and the prime minister resigned. Next day, the president Klaus Iohanis named Viorica Dăncilă as a Prime Minister. In Figure no. 1 the BET-XT index is displayed with 20 day Bollinger Band (BB) and below the price, is displayed also the 20 day Bollinger Band Width Indicator (BBW). On an upward trend since the beginning of 2018, the BET-XT index registered on January 16, 2018 (the day of the prime minister's resignation) just a minor correction of 0.10%. Investors didn't seem worried, maybe

because they had been facing a similar situation in June 2017, when the social democratic party withdrew political support for the Grindeanu's government, that was dismissed through emergency motion.

On February 8, 2018 the government adopted a memorandum mandating the representatives of the state in the General Meeting of Shareholders of the national companies, in order to request distribution of at least 90% of the net profit from 2017 financial results in the form of dividends or payments to the state budget. Expectations regarding the generous dividend yields of state-owned companies propelled the BET-XT index, which includes state-owned companies, on an upward trend until the end of April. The index surged above the middle band, walked along the upper band, with a series of upper Bollinger Bands tags, during the uptrend.

At the end of April the trend reversed until June, after the contradictory declarations of the Prim-minister Viorica Dancila and the Ministry of Finance Eugen Teodorovici, regarding an imminent adjustment of the scheme of the pension funds managed privately, Pillar II. The BET-XT index broke below the middle band and triggered a bearish signal, the trend reversed and the index walked along the lower Bollinger Band with numerous touches during the downtrend.

Figure no. 1. BET-XT Index, Daily chart – 2018



Source: authors processing using data provided by ArenaXT – Bucharest Stock Exchange

In July was adopted Law 163 that modifies the Law of accounting and the Law of commercial companies and allows the distribution of dividends based on partial financial results for all companies, not only for the state companies.

From July to December, the BET-XT index increased by 9% and registered an evolution between the upper and low bands. It was a period of consolidation, the Bollinger Bands began to tighten around the price, the volatility was reduced to the lowest value of the year, as we can see from the Bollinger BandWidth Indicator (Figure no. 1). The Squeeze is a reflection of low volatility and since low volatility expects high volatility, a breakout from the squeeze and expansion is expected.

This happened in December when BET-XT Index broke the lower band and recorded a sharp decline of 10,71%, losing 82,1 points in a single trading session. The decreases came as a consequence of the announcement made one evening before, on December 18, 2018 by Eugen Teodorovici, the Ministry of Finance. The announcement regarded an Emergency Ordinance (GEO 114), also called "the greed tax" that would include additional taxes on assets in the banking sector, new taxes on the turnover for the energy and telecommunication sectors, and also important changes of Pillar II, such as ten times increase of the minimum share capital required for the administration of a pension fund. The issuance of such an important normative act without prior consulting with the representatives of the banking system or the National Bank of Romania or economists raised concerns among the investors and panic set into the market. The political uncertainty led to the cancellation of the growth registered by BET-XT index since the beginning of 2018 until that moment and the index closed 2018 with a decrease of 7,62%.

The year 2019 has started with high volatility and significant decreases of the stocks quotations, the capital market being still under the effect of GEO 114 from the end of 2018 (Figure no. 2). In fact, the effect of the GEO 114 and the clarifications and amendments adopted such as GEO 19 from March 2019 influenced the BET-XT index evolution in the first part of the year. The clarifications regarding the appliance of taxes in the banking sector and the improving of minimum conditions for the private pension funds restored confidence among investors.

The reactions to the European parliamentary elections were minimal, the results being accordingly to the surveys and investors' expectations. The day after the governance coalition PSD + ALDE lost the elections, Liviu Dragnea, the president of the social-democratic party was arrested and convicted to jail for 3 years and 6 months. The BET-XT index rose by 2,85%. On October 10, 2019, the Social Democratic executive is dismissed though a censure motion and BET-XT index registered small correction of -0,32%, and on November 4, 2019 the National Liberal Party is invested in office and the BET-XT index increased by only 0,39%.

Figure no. 2. BET-XT Index, Daily chart - 2019



Source: authors processing using data provided by ArenaXT – Bucharest Stock Exchange

The first round of the presidential elections took place on November 10, 2019 and on November 24, 2019, Klaus Iohannis was reelected the President of Romania with a percentage of 66.09% vs. 33.91% obtained by Viorica Dăncilă. Opinion polls already forecasted Klaus Iohannis victory by a comfortable margin, so the elections results were anticipated by the investors and the days that followed, the BET-XT index increased by 1,28% on November 27, broke the upper Bollinger band and trigger a bullish signal. During almost the entire year the BET-XT index traded in the upper Bollinger Band on an upward consolidating trend and closed 2019 with an important increase of 34% comparing to the end of 2018.

5. COVID-19 pandemic influence on the BET-XT index

The risk of infectious diseases diffusion was suddenly shaping the global physiognomy in 2020, due to the health crisis generated by COVID-19. While the World Health Organization has declared COVID-19 crisis as a pandemic on March 11, the first reported cases in Romania were registered in the last decade of February 2020. Since then, the relationship between the COVID-19 outbreak and the stock market instability was examined, suggesting a positive influence of COVID-19 recoveries and stock market performance (Ahmed, 2020) and an asymmetric dependency between stock market performance and COVID-19 related news (Cepoi, 2020). SARS-CoV-2, the virus causing COVID-19, has rapidly spread around the world from China (Whuan city) affecting the global population through measures like: lock down, isolation, quarantined areas, restriction of economic activities and major changes in the labor and educational fields.

From a political point of view, the health crisis has surprised Romania in an unfavorable situation, marked by a strong uncertainty climate due to three failed governments (Grindeanu, Tudose, Dăncilă) during only three years and many civic protests generated by the laws in the field of justice. After three social-democratic governments, the end of 2019 has found the Romanian government ensured by the minority government Orban from the National Liberal Party. In February 2020, the COVID-19 crisis has overlapped over one of the most inappropriate political context: the government Orban was dismissed by motion of censure (February 5, 2020). On the other hand, the political uncertainty was doubled by the economic risks concerning the inflation rate, the budget deficit and the GDP growth.

The Romanian financial system was seriously affected by the extremely market effects triggered by the health crisis, the investors reacting in accordance with the COVID-19 news. Thus, the investors' confidence was eroded by the negative health data and was restored by the appropriate policy intervention in the business environment. According to the Figure no. 3, the restriction measures have put the business environment under significant stress, mainly in the first months of the crisis. Using the Bollinger Band methodology for the period January 2020 – December 2020 in order to simulate the BET-XT evolution, we have found that the initial phase of the health crisis corresponds with a strong decline of the BET-XT value, which drops below the middle band at the very limit of the lower band. The high volatility of the BET-XT index in the mentioned period was also suggested by the Bollinger Bands distance, the bands being far apart from each other. The BET-XT index in the periods April – June and August – September was located to the upper band as direct reflection of the large number of Emergency Ordinances adoptated by the Government in order to support some economic sectors.

Figure no. 3. BET-XT Index, Daily chart, January - November 2020



Source: authors processing using data provided by ArenaXT – Bucharest Stock Exchange

The BET-XT index has penetrated many times the lower band in this timeframe, being influenced by the Romanian government measures that hit the business sector once the state of emergency was declared (March 15, 2020). The negative trend of the BET-XT index was stopped by the severe restriction measures and the firm intervention of the state in the COVID-19 fight, along with the political event of the reinvestment of the Orban Government 2 (March 14, 2020) that has moderated the political uncertainty. Until then, the increasing number of COVID-19 reported cases in Romania, the first deaths, the closure of schools and the official declaration of the health crisis as pandemic, along with the unprecedented evolution of the infectious disease worldwide, has caused panic not only among citizens, but also among entrepreneurs and investors.

In order to examine the critical point of the BET-XT evolution during 2020, we have used the SPSS software to test the research hypothesis: *There was an indirect correlation between the number of COVID-19 daily registered cases in Romania and the BET-XT evolution* (closing values) on March 2020, as the major panic indicator on the financial market. According to the Table no. 1, a Pearson

correlation coefficient was used in order to test the relationship between the two variables, BET_XT and COVID_19. The results revealed a moderate negative correlation between the two mentioned variables: r = -0.472, N = 22, p = 0.027. The null hypothesis was not confirmed.

Table no. 1. Correlation BET_XT and COVID_19 in Romania (March 2020)

		BET_XT	COVID_19
BET_XT	Pearson Correlation	1	-.472*
	Sig. (2-tailed)		.027
	N	22	22
COVID_19	Pearson Correlation	-.472*	1
	Sig. (2-tailed)	.027	
	N	22	22

*. Correlation is significant at the 0.05 level (2-tailed).

Source: authors processing using data provided by www.bvb.ro and www.worldometers.info

The extension of the state emergency on April 15, 2020 has considerably reduced the optimism of a rapid recovery, while the decision to pass from the state of emergency to the alert state (May 15, 2020) was more calibrated, being enforced by some policy measures to support the sectors affected by the pandemic. If the first days of the COVID-19 pandemic in Romania were focused on the immediate effects of the crisis in case of temporary closure of schools (Government Decision no. 217/2020 regarding the granting of days off for parents to supervise their children), the following period was more focused on the economic and fiscal-budgetary measures to support the economy. The slight recovery was sustained by the legislative actions in the business field, its dynamics being influenced by the uncertainty in terms of duration or the magnitude of the financial shocks at the Bucharest Stock Exchange.

The main topics addressed by the authorities in the first semester and transposed in the legal framework most often by emergency ordinances were: support for technical unemployment, tax deductions, state guarantees, state aids and subsidies, allowances for those contributors that have paid their duties until the established dates or deferrals of duties and taxes. The fiscal facilities were a major pillar for the Romanian fight against the COVID-19 effects on the economy, other measures including faster VAT refunds, suspension of the enforcement of outstanding debtors, postponement of the payment of the property tax, while maintaining the 10% bonus. Most of the emergency ordinances adopted by the authorities during the pandemic were related to significant increases of the BET-XT index values, confirming the hypothesis that the political intervention was perceived as a protective element on the Romanian capital market, even if the state has not the necessary fiscal space to implement a strong fiscal incentive package.

The *IMM Invest* (SME Invest) scheme launched in June 2020 was structured in order to sustain the Romanian entrepreneurs by facilitating the small and medium-sized enterprises (SMEs) access to financing in order to cover the working capital needs and the investment activities. The main aim of the SME Invest scheme was to support business through state guarantees and direct grants totalizing approx. EUR 3.09 billion. The program was managed by The National Credit Guarantee Fund for Small and Medium Enterprises (FNGCIMM), the state granting over 23.000 guarantees until the end of the year, just over half the number of companies expected to apply to this scheme. According to it, the state has guaranteed up to 90% of the total value of the loans granted by the financing institutions enrolled in the SME Invest program, including the financing costs. The figures provided by the National Office of the Trade Registry suggest that the entrepreneurial initiative registered in June 2020 a drastic drop compared to June 2019 due to the effects generated by the COVID-19 pandemic, decreasing from 77.940 registrations (January 2019 – June 2019) to 49.051 registrations (January 2020 – June 2020).

Another program designed to serve the SMEs needs during the COVID-19 pandemic was the program *IMM Leasing de Echipamente și Utilaje* (SME Leasing for Equipment and Machinery) regulated by the Emergency Ordinance no. 118/2020/24.07.2020. According to the legislative document, the Ministry of Public Finance grants state guarantees for the purchase of IT&C equipment technology (max. 80% of the total financing amount) or the aquisition of equipment/ technological machinery/transport vehicles used for commercial purposes (max. 60% of the total financing amount). The priority of the SME Leasing for Equipment and Machinery program was justified by the fact that 99.7% of the total number of companies in Romania are SMEs and they contribute with approx. 60% of GDP, employing 60% of the Romanian workforce. The program was an effective tool to stimulate the leasing operations and the economic competitiveness, complementing the SME Invest scheme, together with the IMM Factor (the Emergency Ordinance no. 146/2020/26.08.2020).

Other significant measures were adopted to support the activities in the bovine, swine and poultry sector (GEO no. 149/2020, GEO no. 150/2020, GEO no. 151/2020) or the producers in the wine sector (GEO no. 205/2020). In the air transport field, TAROM Romanian Air Transport and Blue Air Aviation have already accessed the state aid approved by the European Commission to compensate for the economic losses suffered in the context of the COVID-19 pandemic, while more recent legislative initiatives have focused on the HoReCa sector establishing a state aid of 20% of the losses registered by these companies in 2020, compared to the turnover in 2019. The Ministry of European Funds was also a central pillar of fight against the COVID-19 crisis, several project calls being opened through the Large Infrastructure Operational Program and the Competitiveness Operational Program. The new decline of the BET-XT index at the end of September and in October 2020 can be again associated to political uncertainty caused by the local elections, but also by the imminence of a new COVID-19 wave.

On November 30, 2020, in Romania were reported 3.826 new COVID-19 cases and 138 deaths associated with the coronavirus. The total number of COVID-19 cases confirmed in Romania until the reference date was 475.362 (11.331 deaths). The end of the year was more optimistic in terms of political and health uncertainty, due to the local elections, the parliamentary elections and the preparation of the vaccination campaign. The HoReCa sector will be more sustained in 2021 through a state aid scheme which will ensure 20% of the loss of the HoReCa companies calculated according to the turnover for the previous year. The maximum amount of state aid will be EUR 800.000 / enterprise. According to the figures available for the first semester of 2020, the losses of the accommodation structures were around 36.8% of the turnover level (compared to the same period of the 2019), while regarding the food structures, there was a reduction of turnover by 33.5%. The effects of the COVID-19 crisis in economic terms will be felt much deeper in 2021 and the recovery is still uncertain, depending on the coordinated effects to stop the pandemic and to use the most appropriate tools to face the economic downturn.

6. Conclusions

Using a database of daily quotations of the BET-XT index for 2018-2020, this study analyses the effects of political events on the capital market evolution. By applying technical indicators such as Bollinger Bands and Bollinger Bandwidth Indicator in order to emphasize volatility, the findings show that political uncertainty influences the index evolution. Our study shows that the magnitude of the impact of policy measures is stronger than the impact of events such as presidential, local or European parliamentary elections, cabinet formation and dissolution.

The study reveals an asymmetry of the index volatility, in the sense that unexpected "shock" type events with negative impact have determined a much higher volatility than positive events. For example, in the case of GEO 114/2018 volatility was very high and the panic among the investors led to the sharp decline of the market.

Investors follow with interest the statements and actions of politicians, which can influence the economic environment and the evolution of the capital market. This situation is much clear emphasized in the COVID-19 pandemic context, when the supporting legislative measures where received with optimism by the investors, rising the enthusiasm of an economic recovery. By making their intentions more clear, politicians can reduce uncertainty on the financial market, suggesting a

high dependency of the stock market with the policymakers' transparency in implementing the legislative initiatives. In this context, the legislative stability and predictability represent an important part of the investment process, which can ensure an overall positive trend to the financial market development, becoming the main pillar of reaction to the intensity of the COVID-19 crisis.

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Critical Conceptual Analysis on Modern Finance Theories

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Abstract

The main aim of this research paper is to investigate fundamental paradigms in modern financial theory. Stock markets are characterized by a complex nonlinear dynamics that does not converge towards a known finality, respectively a result that can be anticipated or influenced, or at least reduced at the level of a limit cycle. In this context, the very concept of investment rationality reaches a completely different meaning. Thus, limited rationality replaces rational expectations. Financial investors are characterized by certain features. However, inherent deviations from rational investment behavior provide an indisputable empirical evidence regarding the existence of anomalies on the capital market. The classical finance paradigm incorporates the idea that rational investors select an efficient portfolio in order to obtain the highest long-term stock returns but the risk must not exceed the tolerable limit. On the other hand, behavioral finance theory argues that the decision-making process is definitely affected by psychological, affective and emotional factors.

Key words: capital market, arbitration, investor rationality, chaos, fractal, information efficiency
J.E.L. classification: G10, G11, G15

1. Introduction

The paradigm of classical finance is based on the efficient market hypothesis.The basic principle is that each potential investor benefits from the same information so that it is impossible and unlikely to exceed the market dynamics. In other words, the definition provided by Fama revolves around the phrase that an efficient market is characterized by the fact that prices "fully reflect" all available information. Empirical evidence that settles on the basis of numerous research studies led to the substantiation of some results that suggest a rejection of the efficiency hypothesis in strong and semi-strong form. In some empirical studies, the hypothesis of weak efficiency for certain time intervals is validated.One of the most relevant criticisms of efficient market theory concerns the practical irrelevance of using this paradigm in understanding the behavior of stock markets. Numerous research studies have investigated this traditional approach, but the theory is contradicted by empirical evidence. Specifically, the efficient markets hypothesis assumes that the capital market is informational efficient. Instead, the behavioral finance paradigm that we will address in detail in this research paper emphasizes that in a specific conjuncture, financial markets are informational inefficient (Ritter, 2003).

The efficient market hypothesis includes three major dimensions, such as: weak form efficiency, semi-strong form efficiency and strong form efficiency. Houthakker and Williamson (1996) suggested that a validation of weak form efficiency generates a "random movement" or a "random walk" of stock prices. This term is specific to probability theory.Samuelson (1965) argued that stock prices are influenced by the impact of various less significant information sources.

Efficiency in semi-strong form is characterized by the fact that the prices of traded shares (financial assets) adapt to new information, available to the public very quickly and impartially, so that excess profits cannot be obtained by trading certain information. Spulbar and Birau (2018) summarized relevant issues regarding the impact of EMH and argued that the main pillar of the

efficient markets hypothesis is based on the fact that stock market security prices always include and reflect all relevant information. Moreover, Spulbar and Birau (2019) highlighted an important aspect which is that the theory of efficient stock markets includes three major dimensions, namely: the rationality of investors, uncorrelated errors and the assumption that there are no limits to arbitrage.

2. Literature review

Eugene Fama is known in the literature as the father of efficient market theory. Fama (1965) argued that: "The main conclusion will be that the data seem to show consistent and strong support for the random walk model". This implies, of course, that reading the chart has no real value to the stock market investor. The Random Walk (RWH) hypothesis or "random walk" is a paradigm that validates the principles of the efficient market hypothesis (EMH). Technically, Random Walk Hypothesis (RWH) claims that asset prices follow a random pattern. In other words, asset prices are not characterized by a predictable pattern. In addition, information efficiency plays an essential role in conceptualizing the theory of efficient markets.

On the other hand, Fama (1970) suggested that: "The defining statement that in case of an an efficient market, prices fully reflect available information is so general that it has no empirical implications." Sewell (2011) conducted an extensive analysis of the existing literature on the theory of capital market efficiency (EMH) and argued that the condition to fully meet the equilibrium is a demanding requirement, suggesting that no real market could ever be efficient, inducing the idea that efficient market theory is certainly not true. Moreover, Fama (1998) revealed that "an efficient market generates categories of events that individually suggest that prices overreact to information", but the frequency is almost similar for both the undervalued reaction and the overreaction from investors.

Fama (1976) argued that "An efficient capital market is an efficient market regarding information processing, because in an efficient market, prices fully reflect available information." On the other hand, Malkiel (2003) analyzed the linkage between predictability and efficiency in the context of investment opportunity and supported the hypothesis of stock market efficiency even under the following conditions: "if many market participants are quite irrational" and "if stock prices show a higher volatility than can be explained by fundamental elements". Degutis and Novickytė (2014) examined in detail the relevant aspects of EMH and concluded that stock returns are random in case of an efficient market, but it is impossible for investors to obtain extreme (abnormal) profits in this case.

Jegadeesh and Titman (1993) offered a very attractive alternative based on momentum effect strategies that can generate abnormal returns. Spulbar et al. (2019) suggested that the short-term momentum effect is an anomaly of the efficient market hypothesis, which states that winners will outweigh short-term losses or winners will remain winners and losers will remain losers in the short term. Spulbar and Birau (2019) suggested that one of the most important assumptions of traditional finance consider that investors are rational and their main focus is to select an efficient portfolio, which represents a selection of financial asset categories. This have the main purpose to obtain the highest stock returns on long-term but on the strength of a tolerable level of risk.

3. Research methodology

In the following paragraphs we will provide a brief description of the research methods actually used in the structure of this article. Considering the fact that this article constitutes a comparative theoretical analysis, the methodological approach is limited to a critical conceptual review. However, from the econometric modeling perspective of efficient market hypothesis (EMH), we can provide the following definition based on the quantitative approach of efficient market theory:

Definition: A capital market is efficient in terms of a series of random variables, $\varsigma = (G_t), t \in N$, iar $G_t \subset F_t$and if at any time t, the market is in RE-equilibrium (Franke, Härdle and Hafner, 2011) in relation to the function that represents the price of assets traded and also for any value of i and any moment of time t, the following relation is verified:

$$G_t \subset \{F_{i,t} \cup p_t(\omega)\}$$

RE-equilibrium (rational expectations) implies the idea of an equilibrium established at time t, based on the rational expectations of investors, in which for each of its values it is aimed at optimizing the benefits obtained taking into account the information set $F_{i,t}$and the function $p_t(\omega)$related to asset prices.

Konstantinidis et al. (2012) have conducted a comparative research study between efficient market theory and behavioral finance paradigm and concluded that rational investment and efficient market processes over time contradict investor psychology, biased rules of behavior, and market bubbles. In addition, Beechey et al. (2000) highlighted the acute lack of understanding of the financial assets market behavior, as well as the broader objective of efficient resource allocation, while prices used in the financial market sometimes appear to be subject to substantial alignments, which can be maintained for many years. A contribution to the existing literature includes the following empirical research study, ie: Spulbar and Niţoi (2016) which argued that "higher liquidity is positively associated with efficiency, while solvency risk is negatively associated with efficiency". On the other hand, Pinto et al. (2020) suggested that in the case of an efficient market, investors expects to obtain higher average returns over the safe stocks just "by taking above-average risks".

On the other hand, Pal (2016) suggested that the adaptive market hypothesis (AMH) encompasses the efficient market hypothesis (EMH) as an idealization that is not economically feasible, but that serves as a useful benchmark for measuring relative efficiency. A stock market is efficient if prices adjust quickly and, on average, without bias to new information, because it is impossible to overrun the market, so the only concern of the investor is to select a certain risk compensation returns. However, efficiency does not require that the price of the marketable financial asset be equal to its true value, all it needs is market equilibrium. Jethwani and Kumar (2017) consider that the efficient markets hypothesis holds that stock prices already reflect all available information, so that no extraordinary profit can be obtain based on a different strategy, while relying on certain categories of information, such as: previous information, present information and inside information.

4. Results

Fractal market theory can be perceived as an interesting alternative to efficient market theory. The antagonism between this two theories is more than obvious. In fact, the fractal market hypothesis is a new and different approach, which has been developed in order to provide an alternative solution to the difficulties faced by traditional theory in explaining certain complex financial phenomena, such as the unpredictable behavior of capital markets. The fractal market hypothesis (FMH) is based on chaos theory. Chaos theory has established a new level of understanding on the concept of capital market. In general, the capital market is one of the most fertile and accessible areas to apply chaos theory given its fundamental characteristics. A chaotic system, such as the capital market, has certain characteristics such as: unpredictability, instability, nonlinear dynamics, noise and lack of control in anticipation of the dynamics of market behavior. The central element of this theory is not the efficiency of the markets, but their stability. On the other hand, liquidity plays a significant role, because if the market is liquid the market price is close to the fair price.

In classical finance theory, the entire investment construction is based on the idea of rational behavior and optimized decision making. In other words, the influence of various emotional (psychological) factors on the investment decision is completely ignored. A new paradigm has taken shape in the light of the evolutionary stages, but especially involutionary and doomed to failure that have affected capital markets in recent decades, namely the behavioral finance theory. In summary, we can say that the main contribution in understanding capital markets from the perspective of behavioral finance is the use of a new independent variable on the influence of emotional and psychological factors on investment decision. This new paradigm contributes significantly to the understanding of financial market mechanisms, so that investment decisions are more effectively informed. For example, certain psychological factors such as "herd" or group instinct, poor planning, stereotyping decisions, anxiety, lack of patience, the existence of a precarious investment discipline, panic and exaltation, inertia, fear of loss, etc.

In opposition to efficient market theory, the behavioral finance paradigm argues that the influence of information asymmetry and the impact of psychological, social or demographic factors are to some extent a relevant response to obvious anomalies that characterize the behavior of capital markets. The decision-making process, based on the behavioral finance theory, can be defined as the process of selecting an investment strategy from a field of alternative strategies, as a result of a correct prior evaluation of all of them (Mathews, 2005). The behavioral finance paradigm closely combines knowledge from the psychological field and financial theory (Fromlet, 2001), being sometimes assimilated even to the psychological substratum of the decision-making process generated by the prediction of the evolution of financial markets (Talangi, 2004).

The renowned meteorologist Lorenz (1993) considers that we are surrounded by chaos and its manifestations that start from the simplest to the most complex representations. Lorenz's question remained representative in the literature: "Can the fluttering of a butterfly in Brazil cause a tornado in Texas?" In this regards, the author discussed the so-called butterfly effect, which presents the characteristic of sensitivity to the initial conditions of dynamic systems characterized by instability. This leads to the inability to provide predictive results of high long-term accuracy. The theory of fractal markets supports the hypothesis that the stock price is the result of a combination of information aimed at technical analysis (short-term) and fundamental analysis (long-term). Peters (1994) considers short-term price changes to be more volatile or "noisy" than long-term ones. Evertsz (1995) developed some empirical studies on the subject of fractal geometry of financial time series and empirically supports the hypothesis of self-similarities. In mathematics, a self-similar object is identical or nearly identical to a part of it, that is, the whole is in fact a higher-scale representation of a component part. Obviously, the property of self-similarity is a fundamental characteristic of fractals (Mandelbrot, 1982).

Despite these aspects, even if some agents acting on the financial markets are not completely rational, rational agents will prevent them from influencing the evolution of the prices of traded assets for a very long time, through a process known as arbitrage. In this regard, the main theoretical contribution of behavioral finance theory is that in an economy where rational and irrational investors interact, it is very likely that this irrational behavior will have a significant and long-term impact on financial asset prices (Barberis and Thaler, 2003). Given that risk aversion is a defining feature of capital market investors, and especially institutional ones.

The influence of informational asymmetry, the psychological, sociological and demographic substratum can represent up to a certain level, a relevant response to the anomalies reflected by the behavior of emerging capital markets. However, it should be noted that investment decisions are generally influenced by certain factors suggested by the behavioral finance paradigm. Thus, emphasis is placed on cognitive psychology and the emotional dimension of the investment process, especially in terms of short time horizons focused on speculative activity.

The behavioral finance paradigm is an alternative to the difficulties and limitations faced by the conventional financial approach. Fama (1998) argued that various stock market anomalies can be corrected with reasonable changes in technique, as these apparent anomalies are very sensitive to the methodology used to measure them. Despite the fact that behavioral finance theory offers an effective alternative to the inherent limitations of conventional finance, in some circles it is still considered a niche research area.

5. Conclusions

Compared to the theory of efficient markets that supports the practice of stationary yields, the behavioral finance paradigm is based on the use of non-stationary yields. In fact, in the case of efficient markets we are talking about a passive portfolio, while behavioral markets are based on an active portfolio. The paradigm of efficient markets differs fundamentally from the theory of behavioral finance, including the fact that in the first case the rational expectations from the economic perspective are taken into account, while in the second case the irrational expectations from the economic perspective are pursued. On the other hand, if in the case of behavioral finance the value and implicitly the maximization of personal wealth matters first, the theory of efficient markets focuses mainly on price and maximizing utility.

The efficient market hypothesis played a significant role in the development of financial theory. There is no perfect efficiency in terms of the behavior of stock markets. The practical applicability of efficient market theory (EMH) is challenged in the context of the predictable behavior of the rational investor. The three forms of efficient market theory have been rejected, in most cases, by empirical studies in the literature, especially the semi-strong form and the strong form of efficiency. In the literature, there are various research studies that test the market efficiency hypothesis, but most empirical evidence rejects this hypothesis, especially in the case of strong or semi-strong efficiency.

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The Necessity and Importance of Insurance Controlling

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Abstract

In this article we aim to present the need and importance of controlling as a control method and as a management technique, in order to identify the advantages of their subsequent use in the insurance market.

Controlling is considered an indispensable function for the top management of the entity, in the sense of coordination, planning, control and computerization, in order to produce favorable generalizations or conclusions in the decision-making process.

Through this research we aimed to highlight the interdependence between the management of the insurance field and the controlling system. At the same time, we aimed to clarify who the controller is and what are its functions within an entity and what are the stages of the decision-making process.

It should be noted that a controlling system must be available to the management of the insurance industry all the tools to meet their information needs.

Key words: controlling, instruments, entity, control, insurance market
J.E.L. classification: M10, M20

1. Introduction

Within the insurance field there are a number of difficulties regarding the measurement of human resources performance, also we refer to the absence of evaluation criteria and indicators of the entity's performance, lack of correlation between human resources performance and quality of services provided to the public. (Lavine, 2005,p.76)

At the current stage, the notion of "performance" has become an important term for the entity's managers, because a high-performing economic unit more easily overcomes periods of crisis generated by the external environment, meets social needs both quantitatively and qualitatively in a particular segment, etc.

So, the performance is not a simple finding of some results but, on the contrary, it is "a special achievement in a field of activity", which was obtained in a previous period, a better result compared to the competitors, a better result compared to the proposed objectives. In order to be successful, the economic entity must apply the total quality approach which is based on five fundamental concepts: compliance, prevention, excellence, measurement and responsibility.

Controlling has become indispensable for improving business performance and maintaining competitive advantage, as it supports top management in strategic and operational decision making. Given that the details are what differentiate a profitable entity from a bankrupt one, every module of a business must be managed with all seriousness, and the role of the controller is decisive. The controller is the administrator's trusted man. It seeks to ensure that the policies of procurement,

production, staff recruitment or motivation of employees are complied with. It also analyzes costs and intervenes, where possible, to reduce them.

2. Literature review

In this article we want to present the basic concepts and concepts of control, starting from a series of definitions of this concept which are found in the literature. The controlling function is a controversial one in the literature and enterprise practice, with the task of designing and monitoring the management process in defining goals, planning and control processes, with a responsibility for achieving the set goals (Becker & Ulrich, 2016). Anthony (1965) defines the controller that the process by which leaders ensure that resources are effectively obtained and used to achieve the organization's objectives (Anthony, 1965). Other relevant definitions are formulated by Hauschildt (1972).

It is important to mention how the concept of controlling has evolved and developed over time, for the first time in the 15th century in England. The importance of control has started to grow steadily with the 20 years, with management accounting being built up in the '60 years and cost management in the '80.

Subsequently, it presents the main functions of the controller: Investigation and documentation, planning, forecasting and consulting, Regulation and management, control (Jung, 2007), as well as the tools with which it operates: Cost calculation, budgeting and performance indicators.

3. Research methodology

General aspects of risk insurance and the importance of controlling.Insurance is an important part of life. Without insurance, many aspects of today's society and economy could not function. The insurance industry provides coverage for economic, climate, technological, political and demographic risks, thus enabling people to lead their daily lives and companies to operate, innovate and grow.

Insurance is a transfer of risk. It transfers the risk of financial loss as a result of specified but unpredictable events from a person or firm to an insurer in exchange for an insurance premium. Thus, if a specified event occurs, compensation or service can be requested from the insurer (eg platform transport of the damaged vehicle, means of transport insurance for the continuation of the journey).

Insurance is therefore a means of reducing losses due to uncertainty. In exchange for buying an insurance policy for a smaller premium, known as a value, the possibility of a larger loss is ruled out. By accumulating insured premiums and events, the financial impact of an event, which could be disastrous for an insured, is dispersed into a larger group.

Modern insurance - although based on a very simple principle - is an extremely sophisticated risk transfer mechanism, which can take many forms.

Insurance has developed over many centuries. It began with pure maritime insurance, whereby traders agreed to contribute to the loss of those who suffered damage after it took place. The problem with this system was that it did not completely transfer the uncertainty, because traders never knew how much they would have to pay. Modern insurance has developed so that policyholders know from the beginning what is the full value of their participation in damages (ie the premium).

It can be said that modern society could not function without insurance. Many daily activities that we take as such involve a certain risk of damage and could not be carried out without insurance. (Amann, K., & Petzold, J. 2014.p. 209)

The process by which the insured's risk is assessed is called underwriting. The premium and the terms of the insurance contract are based on the assessment of the level of risk performed by the insurer.

Each person or company that wants to be insured brings a different level of risk to the insurer: a wooden house represents a higher risk than a brick one, for example. In order to be convinced that each insured person pays a fair premium, insurers use a number of assessment factors to determine the level of risk. In general, the higher the risk, the higher the premium.

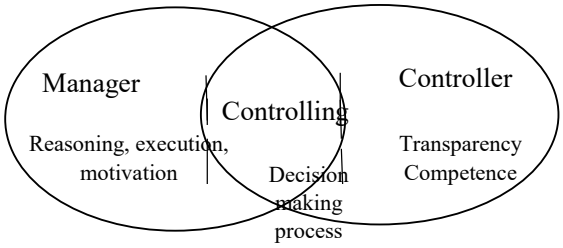
Thus, we appreciate that the exercise of controlling plays an important role in monitoring and managing the performance of insurance.Supported by a series of tools, controlling ensures the tracking and administration of the good results of an entity.

In Romania, in most insurance entities, where the controlling function persists, they are assigned more tasks and accounting functions, such as preparing financial statements, tracking contracts with customers, suppliers.

Thus, it is recommended that, first of all, for large brokerage firms, a separate Controlling Department be included in the insurance organization chart. What happens to small companies, so the Accounting and Planning service is handled by the Accounting Department, but there are some needs that are met separately from accounting.

So, the implementation of the controlling system, which is dedicated to top management, must come to their aid and "translate" the company's results, based on the information provided by the Accounting Department to plan strategic objectives. Controllers provide management with complementary business administration services for goal-oriented and control-oriented planning, and bear joint responsibility with management for achieving set goals.

Figure no. 1. Controlling - the composition of entity management



Source: (own processing)

However, the controller operates at all hierarchical levels and in all areas of the company. Accordingly, a large controlling organization is born in large firms, which includes numerous controllers established at a decentralized level.

Here, however, we do not want to address the organizational details, which will be dealt with in what follows; it is enough for us to remember that the tasks and the position of the controller are significantly determined by the size of the company(Kupper,2005,p.32). Thus, for medium-sized companies it is typical that a controller is seen as a "good girl at all" and does not only deal with controlling activities, while large companies divide the activities of the finance department into activities for the controller and activities for the treasurer, stricter or less strict dividing lines are drawn.

An auxiliary element for determining the tasks of the controller and its driving position is the job description. (Goeldel, H. (2010).46–47)

The job description provides information on the position and hierarchical ratios of the controller, as well as on its precise tasks and competencies.(Ziegenbein, Klaus 2002, p.23) The job description is thus the most appropriate tool for determining the framework of the controller activity and for the visible documentation of the controller position.

Table no. 1. Assurance portfolio of an insurance controller

<table>
<tr><td>Job description</td><td colspan="3">Insurance</td></tr>
<tr><td>1.0 Job title Coordinating controlling</td><td colspan="3">2.0 level Field coordinator</td></tr>
<tr><td colspan="4">3.0. Objectives
-development and application of procedures that lead to the achievement of a sufficient profile for the company
-supporting the company's management as an analyst and advisor for an efficient self-control</td></tr>
<tr><td colspan="4">4.0 Job title of immediate superior
The director of the company
4.1The job holder receives specialized instructions from</td></tr>
<tr><td colspan="4">5.0 The job holder gives specialized instructions to:
-coordinator of the cost calculation department
-coordinator of the planning and reporting department
-employees in the controlling department</td></tr>
<tr><td colspan="4">6.0 The post holder is replaced by
-the director responsible for the financial, administrative and legal problems of the company's economy
-coordinator of the administrative department</td></tr>
<tr><td colspan="4">7.0 The job holder replaces
The coordinator of the administrative department</td></tr>
<tr><td colspan="4">8.0 Special powers of attorney
(Special powers and rights which are not specific to the hierarchical level and which go beyond the general regulation must be indicated here)
-General power of attorney
- power of attorney for the bank</td></tr>
<tr><td colspan="4">9.0 Description of the specialized activities to be carried out in particular by the (independent) job holder
- advising the company director
- responsibility for reporting and entering the information management system
- elaboration of budgets and monthly results
- deviation analyzes and benchmarking
- performing, interpreting and commenting on the comparison of the estimated and achieved results
- making predictions
- drawing up cost calculations per product and setting prices - objective
- strengthening internal and external reporting
- performing profitability and investment calculations
- financial planning
- supporting / performing strategy planning
- process analysis and development of control countermeasures
- unification and development of controlling tools
- Project Management</td></tr>
<tr><td colspan="4">Indication for the job holder:</td></tr>
<tr><td colspan="4">The job description sets out your tasks and competencies in a binding manner. You are obliged to act and decide accordingly. You must inform your supervisor immediately when you notice deviations.</td></tr>
<tr><td>Date:
Hierarchical superior</td><td>Date:
Department coordinator</td><td>Date:
Human Resources Department</td><td>I received the job description
Date:
Signature of job holder:</td></tr>
</table>

Source: (own processing)

At the end of this section it should be clear why the concept of controlling, as a component of the modern management of a company, is an absolute necessity.

Because there are no legal requirements on the controlling function in companies or the quality of its results should deliver (Krings, 2012), the organization of the controlling system that differs from one company to another. It is also a rather vague concept that has been approached over time in a different way. The paragraph seeks to clarify the meaning of controlling according to the current understanding in the literature, noting three different perspectives: (1) the controlling mission statement, (2) the controlling process model, and (3) the concept role in controlling.

The impact of insurance on economic growth

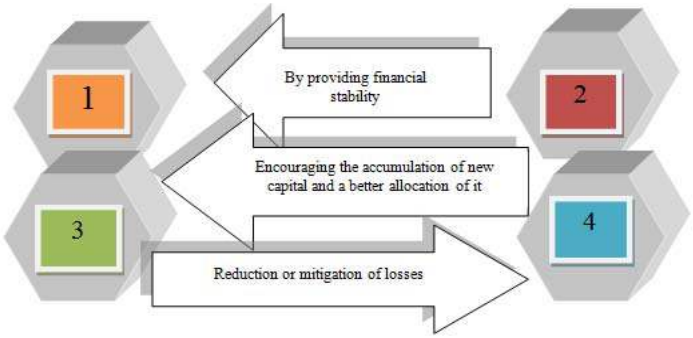
The insurance sector can contribute to economic growth, both as a financial intermediary and through the function of supplier and risk transfer identifier, respectively achieving an effective risk

control and mobilizing the savings of the population. Over the last decades there has been a rapid growth of the insurance market, especially in developing (emerging) markets, due to financial liberalization and integration, which has raised questions about the impact of this sector on economic growth. A large volume of theoretical literature has been devoted to the way in which financial systems influence saving and investment decisions and implicitly the rhythms of long-term economic growth through the following functions.

- exercising corporate governance;
- trading, diversification and risk control;
- mobilization and placement of savings;
- conductor of exchanges of goods and services;
- mitigating the negative consequences that random shocks can have on capital investments.

Financial intermediation supports economic development by improving these functions, and alleviating market frictions, such as the costs of acquiring information,(Horvat 2006,pp.108-110) making transactions and concluding contracts, respectively allowing the economic environment to allocate resources (savings) to investments more efficiently. However, the positive effects of financial development are tailored by macroeconomic policies, laws, regulations, financial infrastructure and the strengthening of rules applied across countries and times.

Figure no. 2 The contribution of the insurance sector to economic growth



Source: (own processing)

4. Findings

Having regard to the ambiguity surrounding the term of control, in this article, clarification has been made as to the definition of this term, so it can be said that the controller must have a good understanding of the processes that are being carried out within the insurance companies but also of the strategy in order to be able to support management.

5. Conclusions

Given the ambiguity that exists over the term controlling, in this article clarifications have been made regarding the definition of these terms so it can be said that controlling must have a good understanding of the processes that take place within companies but also on strategy to be able to support management.

The main purpose of a Controller is to support the management, so that together they achieve the established organizational objectives. It was also considered relevant presentation of the controller profession in Romania of the promises that formed the basis of its appearance, but also the degree to which companies have developed a controlling department.

From the analysis of the literature, but also of the business environment, it was observed that some skills are common both in theory and in practice, such as training, communication skills and team spirit or critical thinking.

In conclusion, we will mention that the current conditions of activity of any entity dictate to the management new requirements for its management. This, in the conditions of the upward development of an information society, it is rational to apply controlling, which is a complex system with its concepts and has a significant impact on management by ensuring the integration of planning and control activities and directly contributes to balanced management decisions.

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Neuronal Network Artificial Model for Real Estate Appraisal: Logic, controversies, and utility for the Romanian context

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Abstract

The requirement for statistical techniques in the appraisal process is far-reaching for every country. Market price accuracy for properties is mean in economics filed, mass appraisal, and for all users of appraisals reports. Studies were developing for econometric models that can be applied in real estate issues. Literature dominates for the USA and UK and stands a need to be tested for emerging (developing) markets. The paper aims to give some hints of the logic, the problems, benefits, and a guide of the ANN (Artificial neuronal network) technique. In the study, much practical information for ANN's representing an encouragement and a tool for other emerging countries to append the technique. We conclude that ANN is critical to be applied in property valuation for emerging countries in the global environment.

Key words: Artificial Neural Network model, market value, appraisal, emerging countries, accuracy
J.E.L. classification: R30, R31, L85

1. Introduction

Classical approaches to property valuation (by market, income, and cost) standardized by valuation bodies and applied by appraisers in professional practice involve a consistent dose of reasoning, inherently related to subjectivism. This has led to some distrust of the market value estimated by the valuators and published in their reports. Numerous studies emphasize the need for confidence in the accuracy of the market value expressed by the valuator given its implications for the economy and the large number of users. Nicolae Cinteză, Director of the NBR's Supervisory Department, points out: "In a period in which the level of value moves mountains of money from one possessor to another, it's correct determination even makes the difference between freedom and its lack!" (Vascu, 2015). Pagourtzi (2003) specified the connection between the market value and each branch of the economy. Ayedun et al. (2011) and Abidoye et al. (2018) empirically verified the accuracy of the market value, noting the need to apply statistical-mathematical methods in the valuation process.

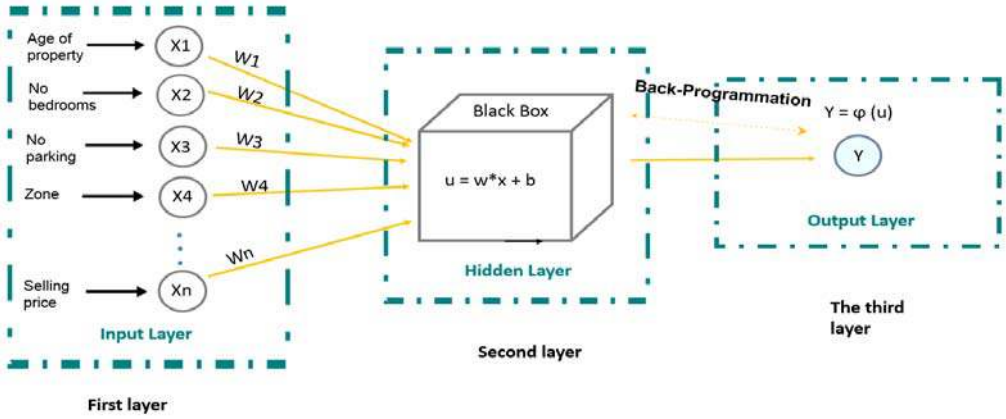
The objective of this paper is to explain the logic of the Artificial Neuronal Network (ANN) model, to highlight its weaknesses that are remediable, in order to build a model specific to the Romanian market. We see ANN as an extremely useful alternative to the market-based approach in valuing real estate in its classic variant, namely the market grid. ANN would largely eliminate the subjectivity of valuation and minimize the working time of evaluators who would apply it, as well as of report users and auditors (auditors, members of the Romanian Chamber of Auditors - CAFR) and reviewers of those reports (specialized valuators from the National Association of Valuators in Romania - ANEVAR). It should also be noted that ANN is useful for certain purposes of property valuation, namely valuation to secure loans and valuation to determine the tax base of companies' assets.

2. Theoretical background. The logic of Artificial Neuronal Network (ANN) model

In the field of property evaluation, various statistical-mathematical models (let's call them econometric) have been applied and tested, sometimes accompanied by computer applications. We think of hedonic models (linear regression model, multiple regression), artificial intelligence models (neuronal network model, fuzzy neural network) and various combinations between them (neural network models, linear regression associated with the geographical model, network model associated with the geographical model) and extensions for their improvement. The neural network model (ANN) is extremely debated today, for which the literature has mixed results above the superiority over other models, such as the regression models (Borst, 1991; Tay and Ho, 1992; Worzala et al., 1995; McCluskey et al., 1996; Wilson et al, 2002; Limsombunchai et al., 2004; Mora-Esperanza, 2004; Peterson and Flanagan, 2009; Lin and Mohan, 2011; McCluskey, 2013). Initially, the ANN model was used in medical research, and then it was taken over in various fields, observing its pliability and efficiency. In the economic field, the ANN model was used to make predictions for economic variables, including transaction prices (market values, selling prices) and rental prices for real estate, generally residential (Kauko et al., 2002; Wilkowski and Budzyński, 2006; Pontus N., 2019).

Artificial neural networks mimic the learning process of the human brain (Lin and Mohan, 2011). The process of conducting the information that needs to be processed is done similarly to the human neuronal cell. In the human cell, the information goes by snaps from the dendrite to another neuronal cell. In ANN communication is done with the help of weights and functions. They make possible the interaction between the three components of the model, and hence the self-learning process takes place, as illustrated in Figure 1. An ANN model consists of three layers: the first layer is the input data units, the second is the hidden layer, being the data processing unit and the third layer is the output layer. The last layer is the unit responsible for emitting the result expressed by the model. Each system is treated separately in order to understand how it works in an ANN model.

Figure no. 1. Components and function of the artificial neural network model



Source: adapted after Lenk et al., 1997, p. 19

The input layer is the first layer, shown in Figure 1. Here the database is entered into the model. In the case of real estate appraisals, the data entered represent variables denoted by X1, X2, Xn which describe the characteristics of real estate (Limsombunchai et al., 2004; Curry et al., 2002; Lin and Mohan, 2011). Each variable corresponds to an artificial neural network that makes connections to the next layer through synapses. The power of conducting information through synapses is due to the weights, called in the literature weight, noted in the figure above with W1, W2, and Wn. They enable the learning activity. Neural networks calculate the total weights entered and the level of stimuli on the connection that is created between the two layers. Each neuron contains a thousand values, which explains the power of information transmission, note Wilkowski and Budzyński (2006). The information that reaches the second layer is called the hidden layer, or can we name the black box.

It is the layer in which countless connections take place to find solutions following the processed data. The following formula illustrates this logic:

$$u = W * X + b$$

Where, u = unit of calculation (linear combination), W = weight (weights of synapses), X = input vector (represented by variables), and b = unit of displacement, the scientific term being bias (Lenk et al., 1997)

Hidden nodes are activated or replaced by a flexible process depending on the signals received (Curry et al., 2000). Thus, data processing takes place on the principle of non-linearity (Curry et al., 2000; Din et al., 2001, Gracía et al., 2008). Details of the data processing cannot be known, which is why it is called a black box. The hidden layer works on the basis of two functions. The first function is related to the sums of weights, and the second function is that of transformation (Lenk et al., 1997). Both applications process the initial values and information (attributes of real estate) after which the result of the values is transmitted (estimating the selling price/market value). The function for weighting sums is used in the network model for the so-called feed-forward or back-propagation (BP) drive procedure. Mathematically, the idea can be represented as follows:

$$Y_j = \sum_{j}^{n} X_i \, W_{ij}$$

Where Xi = the values entered, Wij = weights for each value entered according to a node j in the hidden layer.

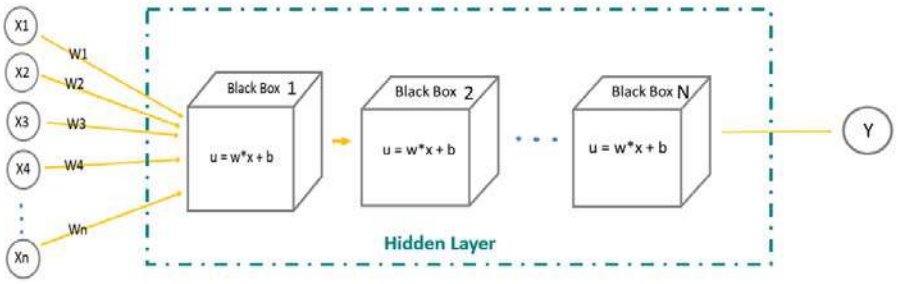
The result of the calculations performed is the market value or Yj denoted in the above equation. In the model, it is not mandatory to use the same function for all layers of the neural network. For example, García et al. (2008) used the linear function for activation, and for the hidden layer and the output, the layer used the sigmoid activation function. The most used function for the model is the sigmoid (regular sigmoid transformation function). It looks like this:

$$T_T = \frac{1}{1 + e^{-y}}$$

Researchers' preference for this function is due to continuity, lack of variation, lack of linearity, and differences in properties (Borst, 1991; Trippi and Turban, 1992). A preference for feed-forward or back-programming was observed. Curry et al. (2002) applied another algorithm, called the Polytope algorithm, but this has a disadvantage for the model by extending the working time as opposed to using the usual algorithms (feed-forward or back-programming). The model starts data processing by randomly selecting or by grouping which assigns according to the same weights for the hidden layer (hidden network). For each new topic introduced, the ANN model will estimate the property price. Then the model compares the introduced price with the estimated one. If there are differences between the results, then the program resumes the calculation and fixes the node weights so as to minimize the error prediction. Of note is the similarity of the network model through its way of processing data with the traditional method from the approaches applied by evaluators on adjustment. During testing, ANN goes through this adjustment step in order to minimize errors when introducing each new real estate subject or in the process of learning. Running of the model will stop when the best results are obtained and that means the lowest error. The lack of the calculated error threshold for the tested sample implies only the effective memorization of the processing or simply the running of the model and thus the result would tend towards a significantly erroneous prediction for any new property introduced in the model. The optimal internal error threshold, the choice of the fixed number of neural nodes and/or the optimal number of nodes to be included for each hidden layer, and the impossibility to penetrate the visualization of the model applied in the hidden layer (black box) are the minuses raised by most researchers (Trippi and Turban, 1992). Unlike any of the component layers of the network, the hidden layer is the only permissive layer in choosing the

number of hidden layers depending on the need of the approximation property of the model. A model of artificial neural networks can have at least one hidden layer. For example, Curry et al. (2002) ran neural networks with two hidden layers, and Din et al. (2001) used a three-layer hidden network. García et al. (2008) applied five hidden layers, and the results were satisfactory. Therefore, the increase in hidden layers can be translated as equal to the increase in the complexity of network processing (Curry et al., 2002). Curry et al. (2002) point out that a single-layer hidden model cannot have the same accuracy as a multi-layer model. This is due to the infinite number of nodes in the hidden layer that forms in the black box. This is the reason on the one hand for which in numerous studies there are highlights by which it is noted the inclusion of another hidden layer as opposed to the number of layers with which the run began. Thus the output of one layer can become input for the next layer (Lenk et al., 1997). And on the other hand, a single hidden layer can be used to mention the number of nodes on the basis of which the run is made. In figure no. 2 a network model is illustrated for which N number of hidden layers was chosen, the layer being represented by the number of black boxes.

Figure no. 2. The artificial neural network model with multi hidden layers (black boxes).



Source: adapted after Lenk et al., 1997, p. 19

The output layer results from the processing of the entered data. Figure no 1. Illustrates the transition from the black box layer to the output layer, where the result is given by the following formula: $Y = \phi(u)$. Y is the estimation of the market value of the building and ϕ represents the activation function of the neuron model for "u" (the unit of calculation) from the black box (Lenk et al., 1997). The most used function for activating the calculation mode is the sigmoid function (Curry et al., 2002). Each run of the model issues a value for the validation error. The best result must be the lowest value for the validation error. As a starting duration of the learning (supervision) of neural networks has the database and the optimization of weights based on the difference between the resulting market value and the comparison market value. A disadvantage of the ANN model is the need to run it manually to optimize the best result, or it takes time (Curry et al., 2002).

The neural network model runs the data introduced from the first layer to the second where various calculations are made, and we are provided with a single result, which is for us the market price of real estate (Curry et al., 2002). Each user of the neural network model has the possibility to make his own design of the model structure depending on the available data and the purpose of use. Here are some examples of the structure of artificial neural networks used in the evaluation. Worzala et al. (1995) tried to choose the right number of nodes for the hidden layer. Thus, in the first case, it had two structures for networks: 7 - 1: 8 - 1, the input layer consisted of 7 independent variables with a hidden layer with 8 nodes and a network in the output layer, represented by the independent variable which is the estimated price for residential property. This structure was used for the informatics model @Brain, and for NeuroShall the following structure was used: 7 - 1: 5 - 1. The results were similar. Also, Worzala et al. (1995) used for the second case the structure 7 - 1: 3 - 1 (@Brain and NeurShall) and for the third group is was 7 - 1: 9 - 1 for @Brain and 7 - 1: 5 - 1 for NeuroShall. García et al. (2008) used the following simplified structure, 14-5-1: 1. As a way of interpretation, we observe the three structures of the model. In the first layer, 14 variables were introduced, and the second layer of the model ran with five hidden layers. The input later, noted in the 1: 1 structure, symbolizes selection for a single answer. 82 - 1 - 1: 1 is the structure of the network model used by Lin and Mohan (2011). Morano et al. (2015) have an ANN model with an 8 - 13 - 1 structure.

3. Research methodology

Worzala (2003) is an example of studies conducted for review of real estate literature. Also, Abidoye et al. (2016) used a systematic review approach to develop a reliable knowledge-based on the ANN model. Similar to these studies, we applied for a historical literature review and critical analysis of the literature on ANN model content and utility as a tool to apply market approach for real estate valuation. The article's sources for analysis are platforms such as Web of Science and Scopus. The keywords used for searches where artificial neural network model, real estate, market value, accuracy, and appraisal. As a type of articles, we privileged those published in prestigious journals but also used (fewer) articles published in conference papers, books, or even papers of various universities in the case of studies conducted for emerging countries, less explored. Since the information has been gathered together, we concluded with an ANN model applying guide in real estate valuation.

4. Debates on the accuracy of ANN in property valuation

Representative for our paper is the works of literature that tested the superiority of ANN over traditional regression models. These include Do and Grudnitsky (1992), Worzala et al. (1995), Rossini (1997), Din et al. (2001), Curry et al. (2002), Limsombunchai et al. (2004), Lin and Mohan (2011). Their results are mixed, with a preference for the ANN model. Do and Grudnitski (1992) obtained, for a sample of residential properties, a price prediction percentage of 40% for ANN, and for the regression model 20%. Worzala et al. (1995) used ANN to test their accuracy, but the results were inconclusive and indicated caution regarding the applicability of ANN. Din et al. (2001) argued that ANN is superior to the simple linear regression (OLS) model developed with a geographic system, having the best performance by obtaining the result closest to the selling price. Lin and Mohan (2011) compared for ANN model the performance with two types of traditional regressions, and the results indicated similar performance on estimating the market price of the three models, associated with an affordable cost. In such studies, to verifying the model performance, the comparison of the percentage of prediction with a statistically relevant threshold is considered, which, the larger it is, the better is the prediction. Another element of comparison is the mean absolute error (MAE), where the lowest value suggests the best performance (Worzala et al., 1995). Lin and Mohan (2011) also introduced other verification benchmarks such as the root mean squared error (RMSE), the mean absolute error MAE, and the Theil's U statistic.

A subcategory of studies in the category of those testing ANN's superiority investigated nuances the idea of ANN's superiority over classical models. Several discussions relate to the appearance that the ANN model is dependent as a predictor on the specificity of the data set. Other difficulties in applying the ANN model and which have provoked debates are the period of time covered by the empirical data used in the model, the model tolerance, the number of hidden nodes, or the number of hidden layers.

Regarding *the ideal number of independent variables*, it differs from one study to another. Worzala et al. (1995) had 7 independent variables as opposed to Kuburic et al. (2012) which had a long list of independent variables that referred to the internal and external description (natural, social, and economic descriptions) of real estate. It has been observed that the higher the number of variables, the longer the data run time.

The size of the tested sample is one of the other discussing issues. Some studies highlighted the performance of ANN for a small database. Do and Grudnitski (1992) ran two models (the regression model and ANN) on 105 database real estate properties. The results highlighted the superior performance of the ANN model over the regression model. Worzala et al. (1995) had a sample of 288 real estate properties for which they ran ANN in two different computer programs, creating three samples. The best network performance was for the 83-property sample versus the other two samples whit 218-property and 137-property samples. Rossini (1997) researching 334 subjects. He highlighted the performance of ANN with a small number of subjects. Din et al. (2001) ran the network model on a sample of 285 subjects. Although ANN obtained better results with $R = 0.87$ than $R = 0.84$ for linear regression, the authors emphasized the need to apply ANN on a larger sample, a conclusion contrary to the other research mentioned above. Other studies have used a much larger

database. Tay and Ho (1992) applied the ANN model on a large database of 1,055 subjects, and the results were good. By removing the outliers subjects from the data sat, an improvement of the network performance was observed. Lin and Mohan (2011) had a database collected from New York with 33,342 residential properties, and the predictions for ANN were as good as those for the multiple regression model. The achievement of Sweden results noted by Pontus (2019) mentioned the changing of results by the number of the running sample and highlighted that the most relevant results were for the sample with the lowest number of subjects. We conclude that the database should have a relevant size, but not necessarily a massive volume.

It seems that *ANN is time-consuming*. Rossini (1997) points out that data processing increases time with the number of subjects. Moreover Worzala et al. (1995) noted that time processing differs from the computer program performance used to run the model. The time-consuming can belong to find the appropriate structure of the neural network and to find the optimal result (Worzala et al., 1995).

ANN excels in some results comparatively whit other less credible results. For the most part, ANN is considered by researchers a possible model in real estate and acclaim being used with great care (Worzala et al., 1995; Rossini, 1997). For example, Worzala et al. (1995) observed a difference in results when running networks in the two different computer programs @Brain and NeuroShall. The database was divided into three particular cases. In the first two cases, @Brain had better results besides the NeuroShall software. Another result noted by Worzala was related to the different results of the three cases studied though the same database was used. The linear regression was more performant than ANN for the first two cases. However for the third case ANN was the best performing.

There is *some missing information* on how neural networks work, particularly related to the black box. For instance, is discussed the non-linear character and flexibility of the ANN model (Rossini, 1997; Din et al., 2001; García et al., 2008). Another element related to the black box is the need for an ideal number of the hidden layers (Trippi and Turban, 1992; Curry et al., 2002). Similarly, Worzala et al. (1995) encountered problems in choosing the optimal number of hidden layers and the number of nodes that these layers should contain. To reach the final structure of the model, there were numerous tests of structures of model construction, with two-three hidden layers and three-nine nodes for the hidden layers. The final choice was a network with one hidden layer.

One other thing is *the vulnerability of ANN related to the correct sampling methodology* (Rossini, 1997). Din et al. (2001) divided the apartments from 258 samples into three groups, the first being 60% of the observation sample, the second is 30% of the test sample, and the third 10% of the sample to validate the results (60:30:10). Lin and Mohan (2011) divided a database of 33,342 residential homes in two 80:20 samples. Thus, they had a sample for validation of 6,668 subjects and for testing 26,674 subjects. The results obtained were satisfactory. Accordingly, to the different results, we conclude that accurate results can be obtained with samples under 1000 subjects.

Finally, another issue raised is *how to know when to stop running the model* (Trippi and Turban, 1992; Rossini, 1997). If ANN is prolonged run can lead to better results for the test sample, hence for the working sample, it leads to significant errors, and not all computer models know when to stop regularly (Worzala et al., 1995; Rossini, 1997). Despite all these uncertainties of the model, the researchers mentioned several methods used for solving the problem evoked. For example, Lin and Mohan (2011) recalled the need of training by running the ANN model until the network error is reduced. After the ANN stored the data set in the testing sample, the Bayesian regularization technique had been used to prevent excessive running. Another example is that of Worzala et al. (1995) which suggested that it should be tracked the network error and applied the judgment of the user of the ANN model for the optimal choice of the number of hidden layers and the number of nodes.

5. Proposing a model adapted to the Romanian market

Based on the literature review and the discussion of various points of view, we appreciate that running an ANN model for the Romanian market is opportune and possible. As research model design for the creation of an appropriate model we see the following coordinates as justified:

a) taking into account that the real estate market and its prices are sensitive in time and differentiate in space, hence a specific geographical context, and a period of 6 months as the age of the model entry data being needed;

b) building a sample of approximately 1,000 apartments with 1 to 4 rooms to ensure the standardization of the type of property and the possibility of obtaining homogeneous data, in a reasonable volume;

c) selecting quantitative independent quantitative but also qualitative variables, in a number as large as possible, when it comes to the relation to the complexity of the databases to be used and to the possibilities of verification/completion of some data by the researcher;

d) running ANN compared to Generalized Linear Model regression using a single application, to avoid replicates with different accuracy;

e) for the construction of the ANN model, using a feed-forward / backpropagation neural network software package, Multilayer Perceptron

f) using up to 30 input nodes as predictors, 1 hidden layer with up to 8 nodes (because there is no theoretical ground for the number of hidden layers and also having in mind to not provoke overfitting of the network), and 1 output node, the estimated selling price of the real estate;

g) as models performance indicators, using the mean absolute error between the predicted sales price and the current prices in the sample, and the percentage of properties whose absolute error was less than 5% of the current sales price, being the most used indicators in the studies that have attempted to demonstrate the superiority of ANN.

6. Conclusions

Above all, as many studies asserted, ANN is not easy to use. Supplementary, it is a goal for testing the model in emerging markets. Designing an econometric model such as the ANN model for the Romanian market of valuations provides the basic needs for practical exercises to be applied by researchers and practitioners in real estate valuation. Creating an ANN model for the Romanian mass appraisal, following the example of market-based economies, would be useful in terms of cost-benefit, and all of those reasons would increase the accuracy of market value estimates. Also, ANN would facilitate the verification of valuation reports, by third parties and profession itself. So, the ANN model it's a promising tool for ANEVAR recent specialization, Verification of valuations. Because of the utility of weighs generated by an accurate ANN model, as well as the predictions of selling prices, ANN would be useful for the mass appraisal (such as those for setting taxes) or for guaranteeing loans. We also believe that an ANN model could help to validate the correctness of the valuation reports required in judicial expertise reports. Often we observe, depending on the number of experts involved in litigation, significantly different values, which create suspicions about the accuracy of values.

Of course, the performance of the ANN model must be improved. As we have shown from the literature review, the ANN model has some imperfections that can be counteracted to some extent. However, some researchers and appraisers wonder if the human brain thinking (*i.e.* professional thinking) and the design of every real estate report is going to be replaced with the ANN model performance. We believe that the diversity of properties, the purpose of using the reports, the display of the amounts of information, and other features do not allow the replacement of professional premise. So we plead for the continued involvement of the judgment of a professional, and for ANN to become only helpful tool in real estate valuation that can be verifiable through various coherence tests.

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Procyclical, Countercyclical and Acyclical Fiscal Policies

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Abstract

This study is limited to aspects related to the nature of the applied fiscal policy. An analysis with theoretical elements contributes to the understanding of the characteristics of procyclical, countercyclical and acyclic fiscal policies. Moreover, a description of them based on the fiscal instruments used (government revenues and expenditures) facilitates the capture of the main features and implications on the economies of emerging countries compared to developed countries. The study also includes an analysis of the manifestation of gross domestic product before and after the economic crisis of 2008. The data used are quarterly, seasonally adjusted and deflated by GDP deflator to be expressed in real terms. The results indicated that the shock of the economic crisis destabilized gross domestic product for more than three quarters. The need to implement a fiscal policy optimized according to national specifications is a desideratum in terms of economic growth.

Key words: procyclical fiscal policy, countercyclical fiscal policy, acyclical fiscal policy, fiscal instruments, economic development.
J.E.L. classification: E62, F43, F63.

1. Introduction

Within the economic theories there are a series of controversies regarding the applicability of fiscal policies and the role of government in alleviating fiscal shocks. The causal relationship between fiscal policy and the government has led to the emergence of fiscal policies aimed at redressing the imbalances that have emerged depending on the phases of the existing economic cycle. In practice, governments apply fiscal policies through the use of two general categories of fiscal instruments. These are identified in the form of government revenue and expenditure and act in the sense of increasing or decreasing.

In the empirical literature, certain characteristics of emerging countries compared to developed countries in terms of fiscal policy have been determined. Thus, emerging countries are inclined to apply a pro-cyclical fiscal policy in order to increase revenues and decrease expenditures in times of recession. In contrast, developed countries tend to adopt a countercyclical fiscal policy, reducing revenues and increasing spending in times of recession. Identifying optimal fiscal policies remains another utopia in the context of interstate differences in the field of fiscal legislation, as well as existing fiscal administration mechanisms. In this respect, an example is given by the economic framework of the European Union, which has created a monetary union precisely in order to standardize and balance the discrepancies between Member States. Although the existence of a fiscal union has been analyzed in the specialized literature, the divergences identified on this subject have counterbalanced the possibility of its rapid implementation or the benefits brought.

In this study we aim to contribute to the understanding of the main types of fiscal policies, as well as how they use government revenues and expenditures in the sense of economic recovery. Understanding the management mechanism of these instruments facilitates their application according to the specific characteristics of each economy. A detailed analysis of procyclical, countercyclical and acyclic fiscal policies, as well as how they contribute to the functioning of the economy in different phases will be useful to both specialists and practitioners in the field. This study is structured as follows: section two includes a foray into the literature, section three includes the research methodology, section four refers to the types of existing fiscal policies, followed by a section that includes the conclusions of this study.

2. Literature review

The clear delimitation of the characteristics of fiscal policies is the common subject for a multitude of studies. In this context, Vodă et al. (2020) states that fiscal policies applied at European level have shown a particular interest in addressing the spectrum of risk issues in terms of business maturity and lack of sustainable economic development. Cristea et al. (2019) analyzes the implications of tax revenues in terms of fiscal policies, taking into account current economic conditions. Regarding the implications of government spending on fiscal policy, Castro and Martins (2018) conducted an in-depth analysis of their functional components.

The results obtained by Gootjes and Haan (2020) suggest that EU member states apply a pro-cyclical fiscal policy, but the applied tax rules seem to reduce fiscal pro-cyclicality. Another empirical analysis whose main objective is to identify the effect of fiscal rules is performed by Misra and Ranjan (2018). An extensive study on pro-cyclical fiscal policy is conducted by Ihori and Kameda (2018) who consider a broad theoretical framework to bring arguments to the type of fiscal policy that promotes economic growth and eliminates or reduces fiscal shocks.

Niemann and Pichler (2020) discuss the existence of an optimal fiscal policy modeled by sovereign risk - both fundamental and self-fulfilling. Regarding countercyclical fiscal policies, Aghion and Sharroubi (2007) analyze their effects on economic growth and the results suggested that countercyclicality arising from discretionary fiscal policy is more important for growth than countercyclicality arising from automatic stabilizers.

3. Research methodology

This paper contributes to the completion of the information system related to the applicability of fiscal policy in a complete transnational framework. In order to interconnect a number of theoretical and empirical elements and to integrate them into the existing fiscal circumstances, it was necessary to use two research methods, namely the comparative method and the critical analysis method.

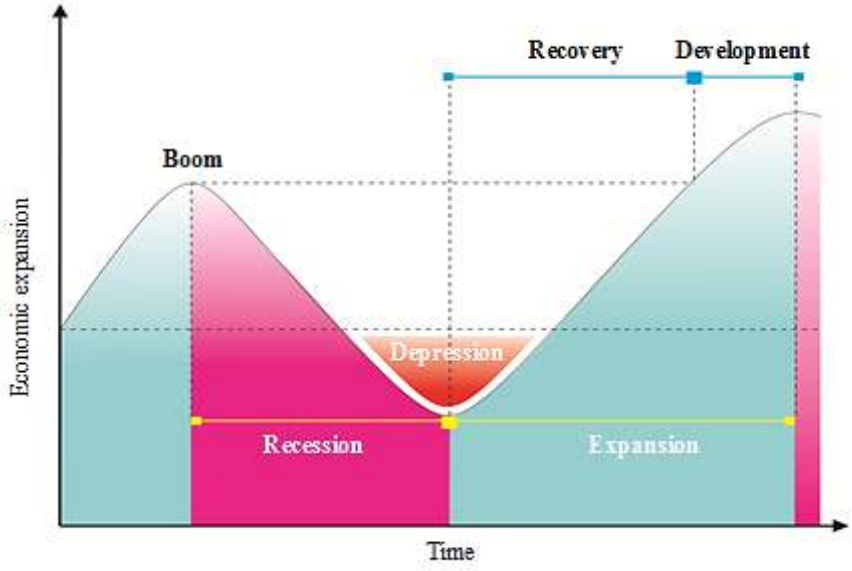
Comparative method. This is an epistemological method that allows the limits of knowledge to be advanced in comparative economics studies. The basic principle of this method is given by knowing the purpose pursued so that two opposable elements can be compared by reaching a common point. The first comparative method will be used to identify differences in fiscal policies and how they contribute to reducing fiscal shocks.

Critical analysis method. The use of the critical analysis method as a procedure for extracting the analytical components from a series of hypotheses, arguments or empirical results to obtain a rational conclusion, is the way in which the final sections of each chapter will be prepared. By using this method it will be possible to express a personal opinion on all the theoretical and empirical aspects analyzed in the paper. The inclusion of reasoning proving the nullity or validity of a presumption will be a constituent part in the successful application of the critical analysis method.

4. Theoretical foundations regarding the principles and roles of taxation

Fiscal policy has a slow course, but also a difficult one, as its current application can have demobilizing effects on future generations, with the risk of changing forecasts because the whole process of economic evolution can not be linear, there is a cycle of economic phases by moving from economic expansion to depression and vice versa, as exemplified in *Figure 1*.

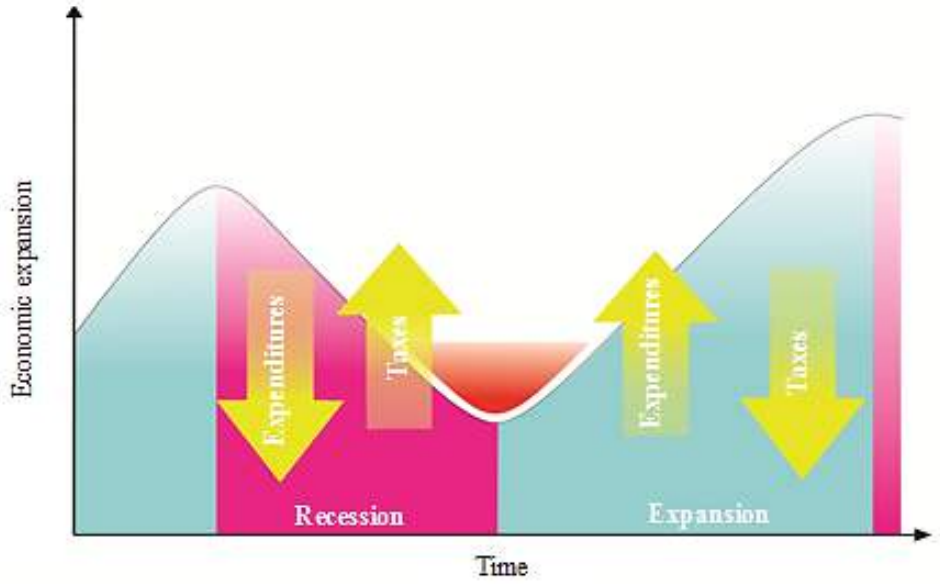
Figure no. 1. Phases of the economic cycle



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Identifying the nature and functionality of fiscal policies does not provide sufficient understanding of their effects on the economy. Their impact in terms of economic development or balance is present in the form of fiscal stimuli. They have the role of reducing economic shocks and directing the whole process towards achieving sustainability. In practice, not all varieties of fiscal policies are defined by a positive effect on the economy. Thus, the answer to the success of economic rebalancing through fiscal stimuli is given by the attributes of fiscal policies that can be pro-cyclical, counter-cyclical and acyclic. Gross domestic product is the macroeconomic indicator underlying the establishment of such effects of fiscal policies. Thus, procyclical fiscal policy is defined as the positive effect of economic recovery in response to fiscal incentives applied by increasing taxes and reducing government spending due to fluctuations in the economic cycle in the recession, aspects presented in *Figure 2*.

Figure no. 2. Procyclical fiscal policy

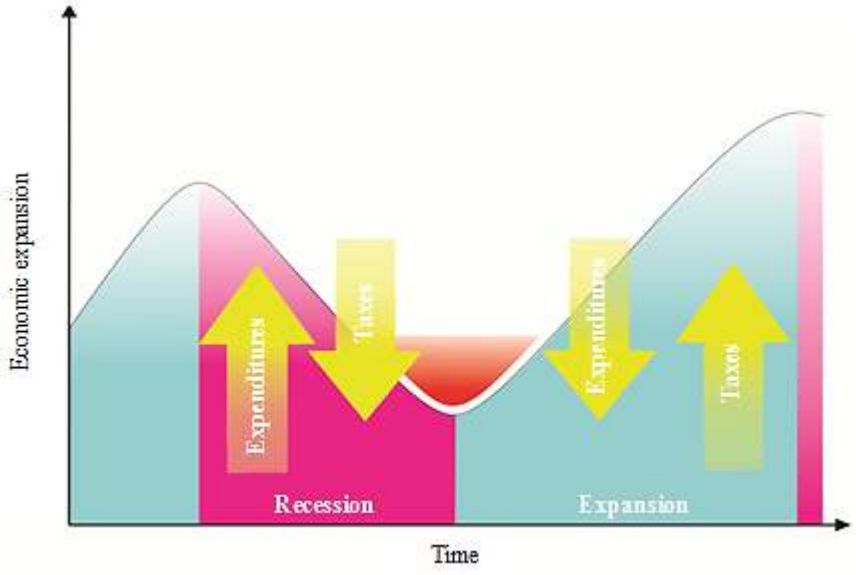


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Fiscal policies applied to reduce an economic shock will result in an increase in gross domestic product. This increase can validate the economy's receptivity to fiscal stimuli. Alesina and Tabellini (2005) state that many countries, especially developing ones, pursue pro-cyclical fiscal policies, namely, expenditures increase and taxes decrease in the expansion phase, and expenditures decrease and taxes increase in the recession phase. The identified empirical results are also supported by Ilzetzki and Végh (2008) who support the idea that in developing countries pro-cyclical fiscal policy is, in fact, truth and not fiction.

In order to increase the capacity to forecast and mitigate these disruptive effects of economic development, countercyclical policies have been developed which involve the adoption of opposite macroeconomic measures by increasing expenditures and reducing taxes and in the recession phase, respectively reducing expenditures and increasing taxes during periods. of economic expansion, according to *Figure 3*.

Figure no. 3. Countercyclical fiscal policy

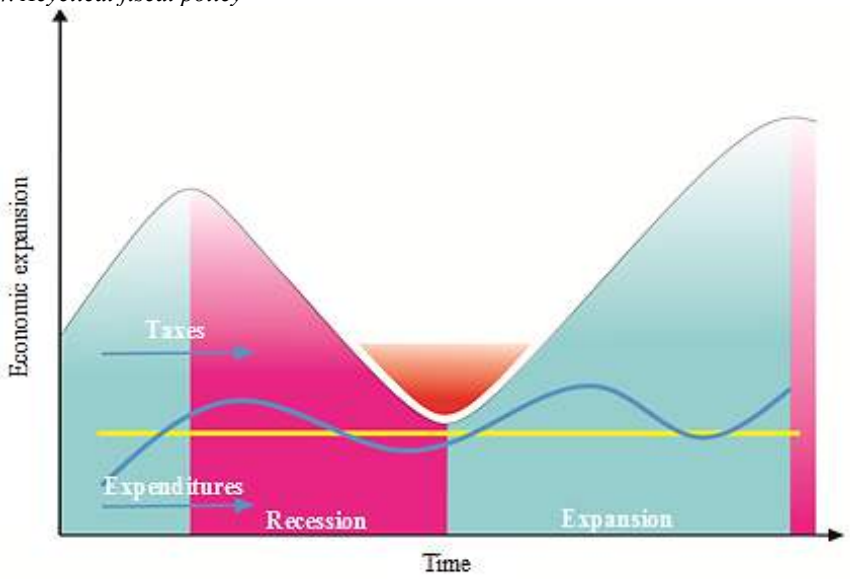


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In this context, according to Keynesian theory, the application of countercyclical fiscal policies is a measure that can have beneficial effects on the entire economy in times of recession. In a baseline study on the integration of fiscal policy in Europe, Galí and Perotti (2003) concluded that fiscal policy became much more countercyclical in the member countries of Economic and Monetary Union after the adoption of the Maastricht Treaty. To assess whether fiscal policy is indeed pro-cyclical or counter-cyclical, Mencinger and Aristovnik (2013) conducted an empirical analysis to assess the fiscal position of 14 euro area countries. The results showed that the fiscal position in most countries is expansionary when production is above the potential level, which implies a pro-cyclical predisposition in periods of prosperity, and when production is below its potential level the fiscal policy position tends to be predominantly countercyclical.

In contrast to the two types of fiscal policies mentioned above, the acyclic fiscal policy is characterized by the absence of fiscal stimuli during the economic cycle. The volume of government spending and the tax rate will remain constant as they will not contribute to economic recovery or development, as shown in *Figure 4*.

Figure no. 4. Acyclical fiscal policy



Source: Author's processing in the Corel Draw vector graphics editor

According to the results of the analysis carried out by Mesea (2013), pro-cyclical fiscal policies are a characteristic of developing countries, and counter-cyclical and acyclic fiscal policies are a characteristic of developed countries. Regarding the effect of discretionary fiscal policies, as well as those that function as an automatic stabilizer, Kabashi (2016) identifies their character through an applied study on transition countries in Central, Eastern and South-Eastern Europe. It has been shown that the discretionary fiscal policy of the transition teeth is pro-cyclical, and the automatic stabilizers are acyclic, unlike the countries in Western Europe where both discretionary fiscal policies and automatic stabilizers are acyclic. However, fiscal policy is used by the state as a means of stimulating economic growth, by boosting business activities and increasing budget revenues. It is based on several common objectives, regardless of the time and place of application, such as: creating a business environment conducive to the development of economic activity, improving tax mechanisms at the national level, economic recovery by influencing taxes that can be used to act favorably on the economy, redistribution of national revenues by respecting the principle of equity, economic stabilization and legislative regulation.

5. Research results

Through a non-parametric approach, the unfavorable periods that each member state of the European Union faced in the period 2000 quarter I - 2019 quarter IV were highlighted. Figure 5 allows a visualization of the trend given by the negative changes of the economic growth rate of the real gross domestic product. The red areas highlight the bad times and the neutral areas highlight the good times. The global financial crisis that began in the United States in 2007 would have consequences in the countries of the European Union only towards the end of 2008. Since 2009 they have been in decline, represented by the financial crisis that would affect all economies in the coming years. years. In the second quarter of 2008, only 53% of countries were affected by the financial crisis, and the percentage will increase exponentially by the end of the year. Thus, in the third and fourth quarters of 2008, the countries were affected by 78% and 89%, respectively. The height of the financial crisis in the European Union was reached in the first quarter of 2009 as 96% of states were already on the brink of recession. In other words, only one country, Poland, recorded a growth rate of gross domestic product of 1.7% in that quarter. In the following quarters, a decrease in the percentage of countries affected by the financial crisis could be observed.

6. Conclusions

The need to identify a way to alleviate or eliminate fiscal shocks has led to the emergence of various types of fiscal policies that adapt to different phases of the business cycle. This study was dedicated to a theoretical analysis of the characteristics of fiscal policies, contributing to the understanding of their functionality. A number of specific features have been identified regarding the direction of the volume of government revenue and expenditure used. In this context, reducing or increasing the revenue received in the general consolidated budget is an action whose effects are fully understood. Instead, the use of expenditure as a tool for implementing fiscal policy has received special attention in the literatureThe effects they produce in the sense of increasing or decreasing are still a subject that is not fully known. This is due to the specificity of the economies that lead to the impossibility of applying a unitary fiscal policy.

Although it is known that only emerging countries are inclined to pursue a pro-pro-fiscal policy, recent studies have shown that developed countries also tend to pursue such a fiscal policy. In retrospect, most EU Member States have acted to increase the level of taxation and government spending in combating the effects of the 2008 economic crisis. However, other factors that may contribute to economic recovery must be considered. . The government must consider the positive implications that public and private investment can have on boosting economic growth. Making an investment stimulates the growth of production and as a result the growth of gross domestic product.

The theoretical elements presented in this study show that the government must be aware of the nature of fiscal policy to be implemented both in times of recession and in times of economic expansion. Issues related to fiscal pressure or, conversely, uncontrolled fiscal easing can also have negative effects on the economy.

Figure no. 5. Good times and bad times in the Member States of the European Union

Country		Austria	Belgium	Bulgaria	Czech Republic	Cyprus	Croatia	Denmark	Estonia	Finland	France	Germany	Greece	Irleland	Italy	Latvia	Lithuania	Luxembourg	Malta	United Kingdom	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	Hungary
2000	I	1,03	0,71	8,66	1,24	1,70	N/A	0,98	4,25	3,04	0,95	1,42	0,38	0,94	1,16	0,38	2,81	5,06	N/A	0,76	0,62	-0,56	2,23	0,99	1,08	1,07	1,60	0,83	0,91
	II	0,81	0,72	0,90	1,40	3,46	0,68	1,14	1,68	0,10	0,94	0,84	0,91	2,78	0,66	0,53	0,90	-0,96	3,17	0,56	1,12	1,19	-0,53	1,38	0,98	1,44	1,25	2,33	1,07
	III	0,58	0,46	0,82	1,32	-2,40	2,03	0,28	1,33	1,56	0,65	-0,04	1,84	2,92	0,68	2,29	1,01	1,54	-2,01	0,27	0,83	0,42	1,46	-1,52	0,59	1,19	1,08	0,87	0,81
	IV	0,87	0,98	0,90	0,57	1,00	2,97	0,98	2,05	1,14	0,81	-0,32	1,42	1,11	1,46	-1,10	1,73	0,81	2,36	0,16	1,30	3,19	0,67	0,67	0,56	0,71	1,03	-0,25	1,65
2001	I	-0,12	0,06	0,78	0,80	1,34	-2,40	-1,09	0,62	0,99	0,55	2,02	1,28	0,79	0,53	2,17	2,90	1,58	-1,48	1,43	0,11	-1,59	-0,31	2,58	0,71	1,21	1,06	0,48	0,91
	II	-0,09	0,02	0,97	0,43	1,56	1,97	0,49	1,53	-0,41	0,12	-0,03	-0,30	1,30	-0,29	5,56	-0,17	-1,99	0,59	0,84	0,51	-0,44	0,97	0,93	1,06	0,31	0,74	-0,13	0,87
	III	0,18	-0,19	1,33	0,39	1,93	0,65	0,90	2,43	0,65	0,38	-0,20	1,62	0,22	-0,24	-3,03	2,08	1,51	1,41	0,80	0,17	0,81	0,15	1,98	0,42	0,59	0,93	0,37	0,85
	IV	0,33	-0,10	1,34	0,48	0,16	2,45	-0,20	1,25	-0,28	0,03	-0,10	0,29	1,52	-0,08	3,35	2,57	2,24	-2,10	0,37	0,32	0,36	1,40	0,84	2,15	0,96	0,69	0,93	0,84
2002	I	0,68	0,86	1,62	0,11	0,85	0,52	-0,03	1,07	0,58	0,27	-0,52	0,80	2,44	-0,04	-0,06	0,27	1,28	4,40	0,44	-0,61	0,11	0,18	2,23	0,31	1,35	0,43	-0,10	2,26
	II	0,37	0,85	1,56	0,27	1,58	1,12	-0,01	2,80	1,42	0,54	0,43	2,24	0,67	0,46	4,61	2,99	1,73	-0,80	0,51	0,35	0,94	-0,46	1,05	1,01	-0,09	0,82	1,52	0,50
	III	0,41	0,54	1,50	0,80	-0,74	1,75	0,34	1,81	-0,30	0,36	0,51	0,58	2,22	0,21	0,63	1,73	-1,30	0,44	0,76	0,16	1,25	-0,45	0,40	2,23	1,14	0,62	0,49	0,99
	IV	0,16	0,37	0,99	0,73	2,23	0,60	-0,33	0,91	0,79	0,05	-0,18	0,76	0,78	0,38	3,89	1,18	-0,15	-1,15	0,86	0,15	0,12	-0,75	1,76	0,69	1,68	0,76	0,26	1,01
2003	I	0,13	-0,27	1,39	1,11	0,01	2,31	0,54	2,34	-0,81	0,12	-1,48	2,07	-1,41	-0,39	0,86	4,78	-0,96	2,64	0,66	0,02	0,36	0,11	-1,65	1,78	-0,04	0,93	1,04	0,82
	II	0,16	0,21	0,95	0,79	-0,33	1,61	-0,93	2,28	1,51	-0,22	0,11	1,78	0,82	-0,11	2,57	1,40	2,70	0,23	0,94	-0,35	2,11	-0,89	1,36	1,49	0,23	0,52	-0,41	1,17
	III	0,44	0,41	1,15	1,13	1,80	0,52	0,34	0,94	1,60	0,69	0,78	0,63	1,34	-0,07	1,99	2,73	0,41	0,64	1,03	0,09	1,12	0,89	2,12	0,40	1,41	0,66	1,29	1,11
	IV	0,32	0,70	2,03	1,07	1,05	0,56	1,86	2,63	0,33	0,78	0,27	2,13	5,20	0,92	1,05	1,72	2,98	0,89	0,85	0,54	0,28	0,38	0,30	1,67	0,63	0,86	0,71	1,16
2004	I	1,27	1,50	1,17	1,12	1,79	2,01	0,48	2,26	0,70	0,87	-0,16	1,84	-0,01	0,34	3,74	1,08	-0,86	-0,95	0,54	0,91	3,10	0,90	4,57	1,30	1,02	0,60	1,62	1,29
	II	0,43	0,96	1,97	0,91	0,64	0,28	0,59	-0,62	1,25	0,66	0,50	0,00	1,70	0,29	1,24	1,71	0,48	-1,39	0,36	0,48	0,81	0,57	1,91	0,69	1,22	0,98	0,63	1,11
	III	0,71	0,87	2,11	1,67	1,58	0,66	0,24	2,20	0,78	0,35	-0,20	1,34	0,15	-0,01	0,42	0,56	1,35	0,97	0,17	0,15	-0,46	0,04	3,36	2,30	0,97	0,94	0,67	1,15
	IV	0,17	0,36	1,37	1,89	1,08	1,83	1,08	2,09	1,94	0,74	-0,09	-0,37	2,38	0,18	2,41	2,66	1,42	3,82	0,33	0,22	1,08	-0,30	1,58	1,54	0,38	0,68	0,92	0,48
2005	I	0,30	0,53	2,18	1,67	1,54	-1,30	-0,36	1,77	-0,11	0,24	-0,01	-0,63	1,19	-0,10	2,60	1,89	-0,61	-1,64	0,84	0,32	1,04	0,77	0,35	1,24	0,98	0,98	0,41	1,13
	II	1,36	0,60	1,40	1,57	0,60	3,74	1,97	3,92	0,48	0,18	0,56	0,26	1,89	0,71	2,49	1,54	1,29	2,92	1,24	0,70	0,18	0,37	-0,42	2,09	1,68	0,88	0,68	1,66
	III	0,54	0,39	1,31	1,45	1,56	1,34	0,11	2,42	0,51	0,49	0,83	1,38	-0,16	0,65	4,78	2,85	1,88	0,21	1,14	1,34	1,89	-0,47	1,96	1,64	0,86	0,97	1,14	0,77
	IV	0,92	0,77	1,67	1,57	0,95	1,03	0,32	2,27	0,41	0,73	0,47	0,49	3,31	0,12	3,68	2,24	0,05	0,82	1,50	0,63	1,86	0,13	2,49	1,47	1,78	1,01	0,75	1,17
2006	I	1,02	0,61	1,55	2,25	1,25	0,49	1,26	2,29	2,66	0,81	0,96	3,29	0,83	0,29	-0,53	0,48	2,59	-0,87	0,40	0,62	1,52	0,82	1,50	2,38	0,73	1,15	1,51	0,94
	II	0,65	0,36	1,73	1,79	1,48	1,32	2,98	2,09	-0,09	1,01	1,74	0,28	-0,06	0,64	4,85	2,25	0,04	0,96	0,25	1,50	2,30	0,96	3,51	2,33	2,14	0,97	1,65	1,32
	III	1,07	0,88	2,13	1,23	0,61	1,42	-0,67	2,26	0,91	-0,01	0,76	0,47	2,08	0,42	3,21	1,74	1,10	0,41	0,10	0,60	1,66	-0,11	0,94	1,91	1,69	0,93	1,09	0,64
	IV	1,21	1,13	1,65	1,38	1,29	1,48	-0,27	2,53	1,02	0,75	1,53	2,54	1,24	1,17	4,44	2,92	2,48	1,47	0,52	0,82	-1,43	0,71	1,41	2,79	2,21	0,96	0,61	0,89
2007	I	0,75	1,42	1,37	1,67	1,81	2,31	0,33	3,27	2,12	0,78	0,05	-0,76	4,26	0,00	1,93	3,11	3,95	2,68	0,93	1,15	4,51	1,05	1,25	2,12	1,86	0,92	1,10	-1,28
	II	1,16	0,46	1,95	0,84	0,67	0,69	-0,45	0,43	1,23	0,76	0,84	2,89	-1,69	0,12	2,03	2,81	2,08	-1,37	0,62	0,51	1,16	0,44	2,32	2,48	1,27	0,90	0,53	-0,14
	III	0,28	0,77	1,22	1,51	1,25	0,26	0,94	0,18	1,03	0,36	0,51	-0,63	-2,07	0,18	1,74	2,69	0,31	1,31	0,78	1,12	1,69	0,21	1,36	2,37	2,02	0,77	0,75	0,56
	IV	0,70	0,41	2,14	1,28	1,70	0,15	1,01	-0,66	1,79	0,23	0,65	-0,47	5,55	-0,32	-1,25	1,87	0,18	0,36	0,47	1,35	1,31	1,12	3,84	6,34	0,22	0,64	0,96	0,38
2008	I	1,37	0,43	1,73	0,24	1,28	2,33	-0,04	-2,15	-0,44	0,43	0,66	0,60	-4,33	1,04	2,00	-0,95	-0,40	1,46	0,54	0,33	1,99	0,01	2,60	-2,75	1,60	0,22	-0,29	0,84
	II	-0,52	0,06	1,10	0,82	0,62	0,61	-0,92	0,98	-0,16	-0,44	-0,26	-0,64	-2,38	-0,90	-3,55	1,08	-0,63	1,71	-0,55	0,49	0,37	-0,49	2,56	1,24	1,62	0,11	-0,15	0,52
	III	-0,56	-0,59	1,04	0,28	-0,05	-1,58	-0,58	0,14	-0,79	-0,32	-0,63	-0,10	-0,46	-1,19	-4,11	-1,21	-0,88	1,00	-1,56	-0,12	-0,45	-0,08	1,29	1,39	-0,54	-0,18	-0,52	-0,16
	IV	-1,88	-2,17	0,30	-1,68	-0,67	-2,69	-2,36	-11,76	-1,59	-1,42	-1,60	-1,41	-3,08	-2,47	-2,45	-1,00	-3,18	-2,07	-2,07	-0,66	0,25	-1,29	-0,60	1,15	-3,73	-1,61	-3,84	-3,25
2009	I	-1,53	-0,97	-3,94	-3,49	-1,43	-4,47	-1,42	-2,60	-6,59	-1,66	-4,68	-4,75	-1,25	-2,80	-3,64	-12,70	-1,39	-3,00	-1,75	-3,59	1,70	-2,52	-7,89	-9,41	-4,42	-2,61	-0,81	-4,23
	II	-0,89	0,05	-0,19	-0,79	-0,33	0,15	-1,94	-3,31	-0,15	-0,08	0,14	2,79	-0,30	-0,32	-5,66	-1,25	-1,76	0,65	-0,24	0,00	0,01	0,09	0,63	1,57	-1,09	-0,01	-0,19	-0,15
	III	0,33	1,26	0,67	0,49	-0,23	-1,29	0,35	-1,88	0,46	0,18	0,57	-0,71	-1,14	0,48	-4,95	0,28	1,69	0,81	0,07	0,40	0,62	0,88	1,73	1,61	0,24	0,21	-0,17	-0,03
	IV	1,05	0,80	-3,11	0,22	0,60	0,72	0,09	0,51	-0,30	0,69	0,75	0,12	0,05	0,31	0,28	-1,35	1,87	1,22	0,30	0,60	2,42	0,05	1,28	1,81	-0,13	-0,02	0,26	-0,04
2010	I	-0,79	0,52	0,93	0,75	1,04	-1,06	0,86	1,45	0,59	0,36	0,80	-1,65	1,57	0,32	-0,61	1,04	1,36	1,03	0,64	-0,18	-0,60	0,82	-6,42	1,57	-0,12	-0,03	3,55	-0,21
	II	1,66	0,98	1,49	1,00	0,13	-1,04	0,68	1,33	2,61	0,54	2,24	-3,03	0,58	0,74	-0,74	1,29	2,02	-0,03	1,00	0,43	1,47	0,55	0,75	1,07	1,77	0,15	1,79	0,73
	III	0,96	0,42	0,64	0,53	1,04	1,52	1,59	1,53	0,32	0,60	0,83	-3,51	0,86	0,48	-0,52	0,00	-0,14	1,59	0,66	0,43	1,44	0,08	-0,47	1,06	0,27	-0,05	1,01	0,63
	IV	0,65	0,51	1,03	0,52	0,38	-1,28	-0,23	2,17	1,92	0,70	0,82	-1,17	-0,26	0,59	1,27	2,40	0,73	0,89	0,06	1,13	0,99	-0,19	1,95	0,66	0,53	0,07	1,53	0,13
2011	I	1,45	0,48	0,26	0,74	-0,07	-0,63	0,22	2,08	0,31	1,02	1,92	-2,94	0,23	0,34	1,61	2,25	1,96	-0,25	0,63	0,59	1,28	-0,66	-0,41	0,45	0,64	-0,16	0,71	0,85
	II	0,21	0,21	1,04	0,19	0,50	1,59	1,00	1,95	-0,29	0,08	0,10	-1,52	0,19	0,12	3,56	1,31	-1,00	-0,86	0,10	-0,09	1,30	-0,43	0,21	0,78	-0,50	-0,32	0,09	-0,02
	III	0,01	0,29	0,06	-0,14	-1,76	-0,36	-1,24	1,63	0,33	0,24	0,86	-2,08	-0,74	-0,47	2,05	0,71	0,71	0,83	0,31	-0,01	1,34	-0,78	2,12	0,58	-0,18	-0,65	1,03	0,33
	IV	0,16	0,29	-0,18	0,19	0,63	-0,65	0,82	-0,02	0,22	0,27	-0,27	-4,01	-0,13	-0,88	0,25	1,10	0,03	1,56	0,19	-0,60	0,81	-1,48	-0,84	0,89	0,06	-0,65	-1,17	0,87
2012	I	0,87	0,21	0,43	-0,13	-0,76	-1,21	-0,07	0,56	-0,12	0,06	0,20	-0,99	0,55	-1,13	1,91	0,19	-1,31	-0,51	0,64	-0,22	0,14	-0,55	0,95	0,48	-0,65	-0,94	0,19	-2,03
	II	-0,65	0,00	-0,29	-0,52	-1,77	-0,80	0,07	1,15	-1,75	-0,16	0,17	-1,89	0,46	-0,77	-0,28	0,75	1,01	1,28	-0,08	0,06	-0,21	-1,35	1,00	0,27	-1,74	-0,96	0,11	-0,33
	III	0,11	0,24	-0,17	-0,52	-1,30	0,30	0,09	0,46	-0,25	0,20	0,29	-1,26	-0,93	-0,55	1,05	2,71	-0,32	1,24	1,22	-0,43	0,44	-1,13	-0,24	0,16	0,19	-0,51	-0,28	0,36
	IV	-0,08	-0,05	-0,18	-0,30	-1,87	-0,93	-0,16	0,85	-0,39	-0,07	-0,42	0,01	0,91	-0,80	0,31	0,38	0,94	1,47	-0,15	-0,71	-0,39	-1,58	0,47	-0,08	-2,00	-0,76	-0,45	-0,24
2013	I	-0,49	-0,28	0,06	-0,45	-2,38	0,61	0,56	0,43	0,09	-0,06	-0,47	-2,21	-1,77	-0,85	0,79	0,34	0,53	0,15	0,64	0,33	0,21	0,42	0,94	-0,04	0,19	-0,32	1,11	0,56
	II	0,51	0,58	0,01	0,15	-2,19	-0,02	0,07	-0,23	0,07	0,70	1,05	0,06	2,10	0,01	0,10	0,94	2,41	2,85	0,54	-0,18	1,08	0,76	1,30	0,32	0,30	-0,09	-0,11	0,86
	III	0,22	0,31	0,65	0,31	-0,17	-0,67	0,63	-0,27	0,00	0,01	0,54	0,43	2,78	0,18	1,24	0,96	1,70	0,69	0,95	0,61	0,82	-0,14	1,10	0,47	0,00	-0,05	0,45	1,28
	IV	0,49	0,22	0,37	1,29	-0,36	-0,15	0,20	-0,02	-0,76	0,46	0,34	-0,63	-0,59	-0,20	0,76	1,24	-1,45	0,28	0,53	0,63	0,12	1,10	1,24	0,59	1,95	0,17	0,91	1,07
2014	I	-0,02	0,43	0,20	-0,14	-0,65	-0,04	0,25	1,60	0,10	0,06	0,97	0,78	3,77	0,11	-0,09	1,19	4,15	4,13	0,66	-0,10	1,07	-0,64	0,44	0,69	0,06	0,37	0,70	0,84
	II	0,00	0,26	0,87	0,93	-0,31	0,51	-0,07	0,45	-0,30	0,18	-0,03	-0,17	3,31	-0,01	0,62	0,60	-1,93	2,55	0,66	0,59	1,13	0,33	0,44	0,75	0,86	0,46	0,90	1,25
	III	0,22	0,69	0,58	1,28	-0,31	-0,43	1,67	1,27	0,70	0,49	0,49	1,29	0,95	0,14	0,52	0,12	2,16	0,84	0,58	0,25	0,84	0,09	1,43	0,91	0,60	0,74	0,67	0,88
	IV	0,28	0,52	1,08	1,31	0,29	0,84	0,36	1,46	-0,14	0,09	0,86	-1,12	0,49	-0,21	0,68	0,25	0,81	3,18	0,56	0,90	0,58	0,81	0,84	1,03	0,13	0,86	0,84	0,63
2015	I	-0,11	0,52	1,10	1,60	1,35	0,66	0,69	-1,12	-0,49	0,43	-0,20	0,37	23,25	0,21	0,71	0,81	2,84	3,60	0,53	0,59	1,23	0,64	1,14	1,75	0,48	1,15	1,29	1,73
	II	0,65	0,67	0,85	1,48	1,69	0,87	0,47	1,70	0,84	-0,04	0,63	0,07	-2,34	0,40	1,45	0,78	0,42	2,58	0,71	0,32	0,70	0,30	0,21	1,13	0,69	1,07	0,97	0,22
	III	0,50	0,19	1,25	1,10	0,42	1,15	0,30	0,74	0,25	0,44	0,45	-1,94	3,25	0,23	0,99	0,44	-0,96	1,62	0,43	0,34	1,15	0,12	1,63	1,09	0,59	0,91	1,34	0,73
	IV	0,09	0,42	0,81	0,63	2,08	-0,21	0,22	-0,45	0,51	0,21	0,44	1,24	0,14	0,49	-0,42	0,24	1,66	2,65	0,75	0,02	1,20	0,48	1,17	0,73	0,14	0,97	0,85	1,03
2016	I	0,80	0,18	1,00	0,29	2,53	1,58	1,15	1,08	0,53	0,62	0,80	0,02	-0,40	0,31	1,09	0,40	1,04	0,37	0,17	0,91	-0,21	0,46	1,18	0,03	1,09	0,68	0,19	-0,62
	II	0,42	0,67	0,95	0,35	1,01	0,65	1,35	0,06	1,01	-0,29	0,57	-0,58	0,42	0,17	-0,58	0,49	2,30	0,51	0,53	0,22	1,29	0,31	1,47	0,42	1,13	0,42	0,11	1,38
	III	0,54	0,24	0,66	0,47	1,16	1,09	0,85	1,32	0,76	0,24	0,21	0,32	-0,22	0,56	0,20	1,43	1,05	1,70	0,45	1,14	0,21	1,18	0,33	0,46	0,98	0,89	0,44	0,57
	IV	0,92	0,51	1,14	0,68	2,15	0,89	0,72	1,73	0,84	0,61	0,36	0,17	10,97	0,35	1,31	1,20	1,37	2,60	0,65	0,86	2,19	0,92	2,04	0,63	0,77	0,46	0,60	0,84
2017	I	0,40	0,77	0,81	1,41	0,51	0,43	0,54	1,70	0,84	0,80	1,19	0,08	-5,79	0,58	1,39	1,09	-1,85	2,22	0,58	0,50	1,11	1,21	2,29	0,85	1,74	0,76	0,40	1,44
	II	0,84	0,32	0,85	2,44	0,96	1,02	0,52	1,53	0,56	0,69	0,56	1,14	3,52	0,37	1,18	0,94	0,53	0,41	0,25	0,90	0,97	0,48	1,59	0,84	1,36	1,03	1,19	1,24
	III	0,77	0,13	0,82	0,49	0,79	0,82	-0,89	0,66	0,42	0,69	0,86	0,48	5,19	0,38	0,74	1,06	1,75	1,83	0,34	0,69	1,17	0,71	1,97	0,84	0,83	0,53	1,23	0,94
	IV	0,45	0,81	0,72	0,64	0,95	0,55	0,97	1,22	1,15	0,76	0,73	0,45	3,55	0,54	0,53	0,97	1,15	0,66	0,40	0,77	1,48	0,78	0,77	1,18	2,05	0,69	0,13	1,46
2018	I	0,80	0,21	0,61	0,49	1,56	-0,20	1,20	1,27	0,46	0,22	0,13	0,59	-0,60	0,09	1,77	0,65	1,59	1,91	0,06	0,61	1,34	0,52	0,49	0,93	0,31	0,49	0,76	1,29
	II	0,27	0,28	0,91	0,59	1,09	2,03	0,30	1,19	0,04	0,17	0,39	-0,13	2,26	-0,10	1,39	1,16	-0,73	2,62	0,53	0,67	1,35	0,75	1,40	1,24	1,16	0,55	0,64	1,12
	III	0,33	0,16	0,92	0,63	0,28	0,40	0,66	1,16	-0,09	0,30	-0,10	1,09	1,85	-0,16	1,32	0,60	0,42	2,62	0,59	0,26	1,35	0,36	1,57	0,97	1,09	0,50	-0,47	1,52
	IV	0,79	0,80	0,89	0,89	0,56	0,28	0,85	1,25	0,04	0,48	0,21	0,03	0,28	0,11	0,74	1,34	-0,03	0,46	0,21	0,51	0,41	0,40	0,77	0,46	0,64	0,56	1,16	1,08
2019	I	0,48	0,04	1,12	0,59	1,40	1,21	0,00	1,00	0,57	0,31	0,47	0,38	2,99	0,22	-0,35	1,16	0,66	0,07	0,61	0,43	1,51	0,60	1,08	0,63	0,58	0,53	0,03	1,37
	II	0,08	0,34	0,86	0,61	0,97	0,54	1,04	0,77	0,85	0,36	-0,24	1,28	-0,06	0,07	0,76	0,87	2,09	1,56	-0,18	0,37	0,80	0,57	0,82	0,31	0,00	0,36	0,23	1,10
	III	0,11	0,44	0,76	0,40	0,41	0,75	0,38	1,00	0,71	0,26	0,08	0,58	1,68	0,06	0,71	0,33	0,22	1,43	0,42	0,44	1,33	0,28	0,54	0,37	0,77	0,41	0,28	1,15
	IV	0,29	0,40	0,34	0,43	0,55	0,22	0,85	1,15	-1,23	-0,08	0,15	-0,92	1,45	-0,17	-0,27	1,26	0,25	1,01	0,21	0,41	0,24	1,05	1,63	3,91	0,40	0,53	0,28	0,93

Source: Author's processing in the Excel spreadsheet.

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Budgetary Control of Sales: Models of Analysis in Economic Entities in Romania

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Abstract

The purpose of this research paper is to identify analysis models for performing budgetary control of sales in economic entities. After presenting the theoretical background and research methods used, some models of budgetary control that can be used are analysed both theoretically and practically. The research begins with the budgetary control of the turnover and then continues with the budgetary control of the sales margin. The analysis is performed differently in enterprises selling a limited range of products than in enterprises selling a wide range of products. Even if the study is carried out in enterprises whose object of activity is the trade of meat products, the research results can be used by any economic entity carrying out a commercial activity.

Key words: deviations, budget, budgetary control, turnover, sales margin
J.E.L. classification: D22, M41

1. Introduction

Under the conditions of modern economy, it has become necessary to better adapt management control tools to the realities of the economic environment, to provide managers with decision-support tools in order to increase the performance of economic entities. One of these instruments is the budgetary control.

The paper is intended to be a research whose main objective is to highlight the contribution of budgetary control of sales to the information system of economic entities specialized in the trade of meat products. The objective stems from the desire to create added value in a common area, that of sales, and to generate useful and valuable knowledge both for the academic environment and for the business environment.

The following research hypotheses are attached to the proposed research objective:

Hypothesis 1: Budgetary control of commercial activity must begin with sales control;

Hypothesis 2: The extension of the management control use in the sales departments leads to the increase of performances in the economic entities of meat industrialization in Romania.

2. Theoretical background

The budget system is a subsystem of the management control system and is defined as "the set of techniques put into practice to establish short-term forecasts applicable in the management of an enterprise and to compare them with the actual results found" (Forget, 2005, p.9). The budgetary system of an economic entity reunites two main elements: a set of budgets and a budgetary control procedure.

The sales budget is the key of budget architecture. Every budget process begins with its creation. The sales volume will influence the production level and all other business budgets. The preparation of the sales budget consists of estimating the future sales of the economic entity. Determining the volume of sales is crucial, and yet the level of sales is not a factor entirely controllable by the enterprise, as it mainly depends on the situation, the customers and the competition. The sales budget will indicate at the end of the budgeting process, quantitatively and in value, the sales to be made by periods, products and/or groups and destinations.

Budgetary control of the business is important for the assessment of the performance of the commercial function of the enterprise. Its performance requires good information from those responsible of it, on the objectives, the standards that have been formulated and on the achievements during the management period for which the control is carried out. Through control, it is analysed through (favourable or unfavourable) deviations how to achieve the objectives of the sales budget (quantity objectives, price objectives, sales structure objectives) and how to use the means from the sales budget. Solutions are also formulated to correct deviations (for negative deviations) or to maintain and capitalize on them (for positive deviations).

3. Research methodology

The research paper was prepared by combining theoretical with empirical research. The theoretical documentary research is characteristic to any scientific approach. Information sources used for it summarize: specialized national or international books; specialized articles published in renowned journals, legislative acts; regulations of national professional bodies; studies and research carried out by various professional bodies.

Starting from theory I came to practice. Data used for the research were taken from an economic entity from Dambovita County, having as object of activity the sale of meat products, and which, by expanding it, actively contributes to job creation for citizens.

Several documents were used for this research. They came from within the economic entity, but also from outside. The documents refer to both the past and the present of the entity, containing actual figures, but also budgeted figures. Financial and statistical documents have been a real help. Some information were obtained after talking with staff working in the sales department of the enterprise where the research was conducted.

3.1. Budgetary control of turnover

Sales control consists of verifying the achievement of budgeted values based on the deviation (ΔCA) between sales achieved CA_r (recorded in the accounts) and forecasted sales CA_b (extracted from the budget): $\Delta CA = CA_r - CA_b$. If $\Delta CA > 0$, the deviation is favourable (the turnover achieved exceeds the budgeted turnover). If $\Delta CA < 0$, the deviation is unfavourable (the turnover achieved is lower than the budgeted turnover). As the turnover is the result of weighting the quantity sold (q) with the selling price (p), the deviation from the budgeted turnover for a product can be written:

$\Delta CA = q_r \cdot p_r - q_b \cdot p_b$

In addition to the total evolution of turnover, it is necessary to highlight the causes that led to this change. The turnover deviation from the budget can have two explanations: the modification of the quantity sold and the modification of the sale price. Two sub-deviations can thus be calculated:

- *quantity deviation* = (Actual quantity - Expected quantity) x Expected price

$\Delta q = q_r \cdot p_b - q_b \cdot p_b = (q_r - q_b) \cdot p_b$

- *price deviation* = (Actual price – Expected price) x Actual quantity

$\Delta p = q_r \cdot p_r - q_r \cdot p_b = (p_r - p_b) \cdot q_r$

For enterprises selling a wide range of products with widely varying prices, the deviation from budgeted turnover is calculated based on this relation:

$\Delta CA = \sum_{i=1}^{n}(q_{ir} \text{ x } p_{ir}) - \sum_{i=1}^{n}(q_{ib} \text{ x } p_{ib})$, where:

i – the product.

The calculation of the deviations from the budgeted turnover is made using specific tables called budget control reports. An example of such a report is shown in Table 1.

Table no. 1 Budget control report

Product	Budgeted turnover	Achieved turnover	Deviations (+/-)		
			Total ΔCA	Qty deviation Δq	Price deviation Δp
Product 1					
Product 2					
…..					
Total					

Source: information provided by the economic entity

When it is possible to sum the quantity sold and to determine an average unit price ($\bar{p}$), the turnover can be calculated as follows:

$CA = Q \times \bar{p}$,

where:

$$\bar{p} = \frac{\sum_{i=1}^{n}(g_i \times p_i)}{100}$$

g_i – the share of the quantity sold of product i in the total quantity sold;

p_i – the selling price of product i.

In this case, the turnover deviation is calculated based on the following relation:

$$\Delta CA = Q_r \times \bar{p}_r - Q_b \times \bar{p}_b$$

In this analysis model, the explanation of the turnover's evolution to the budgeted turnover is made by determining the action of the following factors:

- *the influence of the physical volume modification*:

$$\Delta Q = Q_r \times \bar{p}_b - Q_b \times \bar{p}_b = (Q_r - Q_b) \times \bar{p}_b$$

- *the influence of the average price modification*:

$$\Delta \bar{p} = Q_r \times \bar{p}_r - Q_r \times \bar{p}_b = (\bar{p}_r - \bar{p}_b) \times Q_r$$

In turn, the modification of the average price is explained by the change in the following two factors: the sales structure and the unit sales price.

- *the influence of sales structure modification*:

$$\Delta g_i = Q_r \times \frac{\sum_{i=1}^{n}(g_{ir} \times p_{ib})}{100} - Q_r \times \frac{\sum_{i=1}^{n}(g_{ib} \times p_{ib})}{100}$$

- *the influence of the unit price modification*:

$$\Delta p_i = Q_r \times \frac{\sum_{i=1}^{n}(g_{ir} \times p_{ir})}{100} - Q_r \times \frac{\sum_{i=1}^{n}(g_{ir} \times p_{ib})}{100}$$

In order to demonstrate the above, I started from the meat sales of the company (table 2) in a certain management period.

Table no. 2 Sales

Product	Achieved				Budgeted			
	Quantity		p_r (lei/kg)	CA_r (lei)	Quantity		p_b (lei/kg)	CA_b (lei)
	q_r (kg)	g_r (%)			q_b (kg)	g_b (%)		
Pork neck	100	32,26	26,00	2.600	90	28,12	27,00	2.430
Pork tenderloin	120	38,71	35,00	4.200	130	40,63	34,30	4.459
Pork leg	90	29,03	21,50	1.935	100	31,25	22,00	2.200
Total	310	100,00	28,177*	8.735	320	100,00	28,403**	9.089

Source: processing based on information provided by the company

* average effective unit price calculated based on the following relation :

$$\overline{p_r} = \frac{\sum_{i=1}^{n}(q_{ir} \text{ x } p_{ir})}{\sum_{i=1}^{n} q_{ir}} = \frac{8.735}{310} = 28{,}18 \text{ lei/kg.}$$

or:

$$\overline{p_r} = \frac{\sum_{i=1}^{n}(g_{ir} \text{ x } p_{ir})}{100} = \frac{32{,}26 \text{ x } 26{,}00 + 38{,}71 \text{ x } 35{,}00 + 29{,}03 \text{ x } 21{,}50}{100} = 28{,}177 \text{ lei/kg.}$$

** budgeted average unit price calculated based on the relation :

$$\overline{p_b} = \frac{\sum_{i=1}^{n}(q_{ib} \text{ x } p_{ib})}{\sum_{i=1}^{n} q_{ib}} = \frac{9.089}{320} = 28{,}40 \text{ lei/kg.}$$

or:

$$\overline{p_b} = \frac{\sum_{i=1}^{n}(g_{ib} \text{ x } p_{ib})}{100} = \frac{28{,}12 \text{ x } 27{,}00 + 40{,}63 \text{ x } 34{,}30 + 31{,}25 \text{ x } 22{,}00}{100} = 28{,}403 \text{ lei/kg.}$$

By comparing the sales achieved with budgeted sales, it results a deviation of:
$\Delta CA = CA_r - CA_b = 8.735 - 9.089 = -354$ lei

This unfavourable deviation is explained by the influence of the following factors:
a) the influence of the physical volume modification:

$$\Delta Q = (Q_r - Q_b) \text{ x } \overline{p_b} = (310 - 320) \text{x } 28{,}403 = -284 \text{ lei}$$

b) the influence of the average price modification:

$$\Delta \overline{p} = (\overline{p_r} - \overline{p_b}) \text{ x } Q_r = (28{,}177 - 28{,}403) \text{x } 310 = -70 \text{ lei}$$

The average price modification is explained by:
b.1) the influence of sales structure modification:

$$\Delta g_i = Q_r \text{ x } \frac{\sum_{i=1}^{n}(g_{ir} \text{ x } p_{ib})}{100} - Q_r \text{ x } \frac{\sum_{i=1}^{n}(g_{ib} \text{ x } p_{ib})}{100}$$

$$\Delta g_i = 310 \text{ x } \frac{32{,}26 \text{ x } 27{,}00 + 38{,}71 \text{ x } 34{,}30 + 29{,}03 \text{ x } 22{,}00}{100} - 310 \text{ x } 28{,}403$$

$$\Delta g_i = 310 \text{ x } 28{,}37 - 8.804{,}93 = 8.794{,}70 - 8.804{,}93 = -10 \text{ lei}$$

b.2) the influence of the unit price modification:

$$\Delta p_i = Q_r \text{ x } \frac{\sum_{i=1}^{n}(g_{ir} \text{ x } p_{ir})}{100} - Q_r \text{ x } \frac{\sum_{i=1}^{n}(g_{ir} \text{ x } p_{ib})}{100} = = 8.735{,}00 - 8.794{,}70 = -60 \text{ lei}$$

It is found that the achieved turnover decreased compared to the budgeted turnover with the amount of 354 lei. The decrease is due to the sale of a quantity smaller than the one in the budget by 10 kilograms (320 kg - 310 kg) which determined an unfavourable deviation of 284 lei, but also to the modification of the sales structure which led to the decrease of the turnover by 70 lei. This decrease in sales by 70 lei is explained by the decrease in the share of products with a higher selling price than the average budgeted price (pork tenderloin), which led to a decrease in turnover compared to the budgeted turnover by 10 lei), but also by changing the selling prices of some products, in the sense of decreasing them, which negatively influenced the change in turnover by 60 lei (pork neck and pork leg products).

3.2. Budgetary control of sales margin

The simple observation of the difference between the turnover achieved and budgeted turnover, possibly broken down by product, is interesting especially for the commercial services, but it does not measure the favourable or unfavourable turnover effect on the result, which is the goal of the management control. An increase in turnover does not necessarily mean an increase in profit. It is

necessary to measure the impact of the turnover's deviation on the sales margin (M_c), which implies the analysis of the following deviation:

$\Delta M_c = M_{cr} – M_{cb,}$ where:

M_{cr} – sales margin achieved;

M_{cb} – budgeted sales margin;

In companies that sell goods in the state in which they were purchased, the sales margin (M_c) is calculated as the difference between the turnover (CA) and the purchasing cost of goods sold (CC):

$M_c = CA – CC$

In this case, the sales margin deviation from the budget can have two explanations:

- the modification of the turnover (ΔCA);
- the modification of the purchasing cost of goods sold (ΔCC).

$\Delta M_c = \Delta CA – \Delta CC$

In companies where products obtained are sold through their own stores, the analysis in terms of margin raises the question of production costs (CP). The deviation caused by the turnover modification must be dissociated from the deviation caused by the production costs modification.

$M_c = CA – CP$

$\Delta M_c = (CA_r – CP_r) – (CA_b – CP_b) = CA_r – CP_r – CA_b + CP_b = \Delta CA – \Delta CP$

The margin deviation is the difference between turnover deviation and production cost deviation. The margin deviation for one product is:

$\Delta M_c = (q_r \cdot p_r – q_r \cdot cp_r) – (q_b \cdot p_b - q_b \cdot cp_b) = q_r \cdot (p_r - cp_r) – q_b \cdot (p_b - cp_b)$

where:

q_r – the quantity of product actually sold;

q_b – the budgeted quantity of product to sell;

cp_r – actual unit production cost;

cp_b – budgeted unit production cost;

p_r – actual sale price;

p_b – budgeted selling price.

Because the control of production costs is not the responsibility of commercial services, but of production services, and for the sake of proper localization of responsibilities, A. Burlaud and C. Simon (Burlaud & Simon, 2003) suggest that the transfer of products to commercial services to be carried out based on budgeted costs. The turnover deviation and the way in which it influences the evolution of the sales margin are the responsibility of sales departments, which cannot be also responsible for production costs. They propose, at the level of these services, to neutralize the influence of the production cost and to calculate the sales margin deviation (ΔM_c) according to the relation (the relation corresponds in fact to the influence of the turnover variation on the sales margin):

$\Delta M_c = (CA_r – CP_{sr}) – (CA_b – CP_b)$, where:

CP_{sr} – semi-real production cost (budgeted cost recalculated to the actual production volume).

$CP_{sr} = cp_b \cdot q_r \Rightarrow \Delta M_c = q_r \cdot (p_r – cp_b) – q_b \cdot (p_b - cp_b)$

The analysis of the causes that determine the margin deviation is carried out differently in companies with a limited range of products than in those having a large range of products.

If the company sells a limited range of products, the total deviation of the turnover influence on the sales margin is equal to the sum of the deviations for each product. In turn, each product is analysed by breaking down into two sub-deviations:

- *volume deviation*: $\Delta q = (q_r - q_b) \cdot m_{cb}$
- *price deviation*: $\Delta p = (m_{csr} – m_{cb}) \cdot q_r$

or: $\Delta p = (p_r - p_b) \cdot q_r$

where:

m_{csr} – semi-real margin; $m_{csr} = p_r - cp_b$

m_{cb} – budgeted margin; $m_{cb} = p_b - cp_b$

By adding the two deviations, the total influence of the turnover deviation on the sales margin is obtained: $\Delta M_c = \Delta q + \Delta p$

If the range of products is extended, the analysis by product is insignificant and too expensive. In this case is preferred an analysis by breaking down the total deviation into three components: volume, price and structure. If products show a high degree of homogeneity, the volume can be

represented by the physical quantity sold. If the degree of heterogeneity is high, the turnover volume in monetary units is considered.

An increase in turnover does not necessarily mean a favourable influence on the result. The development of low-margin products sales at the expense of high-margin products may lead to an increase in sales volume, but a deterioration of the result, because the structure of actual sales will be less favourable than the expected structure.

When the quantity sold can be summed, the margin is calculated as follows: $M_c = Q \times \overline{m}_c$, where:

$\bar{m}_c = \frac{\sum_{i=1}^{n}(g_i \times m_{ci})}{100}$, where:

$\bar{m}_c$ – average sales margin;

g_i – the share of the quantity sold of product i in the total quantity sold;

m_{ci} – unit sales margin of product i.

The margin deviation is calculated by the relation: $\Delta M_c = Q_r \times \bar{m}_{cr} - Q_b \times \bar{m}_{csr}$

The factors that influence its modification are:

- *quantity*:

$\Delta Q = (Q_r - Q_b) \times \bar{m}_{cb}$

- *sales structure*:

$$\Delta g_i = Q_r \times \frac{\sum_{i=1}^{n}(g_{ri} \times m_{cbi})}{100} - Q_r \times \frac{\sum_{i=1}^{n}(g_{bi} \times m_{cbi})}{100}$$

- *price*, whose influence, due to the neutralization of production cost, is equal to the influence of the individual margin of the products:

$$\Delta p = Q_r \times \frac{\sum_{i=1}^{n}(g_{ri} \times m_{cri})}{100} - Q_r \times \frac{\sum_{i=1}^{n}(g_{ri} \times m_{cbi})}{100}$$

Back to our company selling meat products, the following information regarding sales during a management period are known:

Table no. 3 Budgeted values

Product	Budget						
	q_b (kg)	g_{bi} (%)	p_b (lei/kg)	cp_b (lei/kg)	m_{cb} (lei/kg)	CA_b (lei)	M_{cb} (lei)
Peasant sausages	300	33,33	19,00	11,50	7,50	5.700,00	2.250,00
Kabanos sausages	400	44,45	25,00	15,00	10,00	10.000,00	4.000,00
Small sausages	200	22,22	16,00	12,80	3,20	3.200,00	640,00
Total	900	100,00	21,00	-	7,655**	18.900,00	6.890,00

Source: processing based on information provided by the company

$$* \bar{p}_b = \frac{300 \times 19{,}00 + 400 \times 25{,}00 + 200 \times 16{,}00}{900} = 21{,}00 \text{ lei/kg}$$

$$** \bar{m}_{cb} = \frac{300 \times 7{,}50 + 400 \times 10{,}00 + 200 \times 3{,}20}{900} = 7{,}655 \text{ lei/kg}$$

Table no. 4 Achieved values

Product	Achieved						
	q_r (kg)	g_{ri} (%)	p_r (lei/kg)	cp_b (lei/kg)	m_{csr} (lei/kg)	CA_r (lei)	M_{csr} (lei)
Peasant sausages	350	38,04	20,00	13,95	6,05	7.000,00	2.117,50
Kabanos sausages	400	43,48	23,50	17,50	6,00	9.400,00	2.400,00
Small sausages	170	18,48	18,00	11,05	6,95	3.060,00	1.181,50
Total	920	100,00	21,15*	-	6,194**	19.460,00	5.699,00

Source: processing based on information provided by the company

$$* \bar{p}_r = \frac{350 \text{ x } 20{,}00 + 400 \text{ x } 23{,}50 + 170 \text{ x } 18{,}00}{920} = 21{,}15 \text{ lei/kg}$$

$$** \bar{m}_{csr} = \frac{350 \text{ x } 6{,}05 + 400 \text{ x } 6{,}00 + 170 \text{ x } 6{,}95}{920} = 6{,}19 \text{ lei/kg}$$

The margin deviation is:

$$\Delta M_c = Q_r \text{ x } \bar{m}_{cr} - Q_b \text{ x } \bar{m}_{cb} = 5.699 - 6.890 = -1.191 \text{ lei}$$

For this analysis was used the decomposition of the deviation into three components: volume, structure and price. Thus, the influence of these factors on the margin deviation is:

- the influence of the quantity sold:

$$\Delta Q = (Q_r - Q_b) \text{x } \bar{m}_{cb} = (920 - 900) \text{x } 7{,}655 = 153 \text{ lei}$$

- the influence of sales structure:

$$\Delta g_i = Q_r \text{ x } \frac{\sum_{i=1}^{n}(g_{ri} \text{ x } m_{cbi})}{100} - Q_r \text{ x } \frac{\sum_{i=1}^{n}(g_{bi} \text{ x } m_{cbi})}{100}$$

$$\Delta g_i = 920 \text{ x } \frac{38{,}04 \text{ x } 7{,}50 + 43{,}48 \text{ x } 10{,}00 + 18{,}48 \text{ x } 3{,}20}{100} - 920 \text{ x } \bar{m}_{cb}$$

$$\Delta g_i = 920 \text{ x } 7{,}79 - 920 \text{ x } 7{,}655 = 7.169 - 7.043 = 126 \text{ lei}$$

- the influence of price:

$$\Delta p = Q_r \text{ x } \frac{\sum_{i=1}^{n}(g_{ri} \text{ x } m_{cri})}{100} - Q_r \text{ x } \frac{\sum_{i=1}^{n}(g_{ri} \text{ x } m_{cbi})}{100} = 5.699 - 7.169 = -1.470 \text{ lei}$$

It can be seen that the sales margin achieved is lower than the sales margin budgeted with an amount of 1.191 lei. The increase in margin due to the sale of a greater quantity of products than expected, as well as the favourable influence of the structure of the goods sold did not compensate for the decrease in margin caused by the change in selling prices.

4. Research results

The results represent the fruit of this research and allow us to verify the hypotheses stated above.In commercial departments, physical sales volume has the advantage of providing the most accurate picture of sales volume, but also the disadvantage to have a limited field of use (cannot be used when the goods are very different and their homogenization in conventional units is not possible). The turnover replaces this limit by homogenizing the sales (with the help of prices), reason for which it is very often used in the economic and financial analyses (Maxim, 2000, p.476).

The analysis of deviations from the budgeted turnover can lead to the appreciation or decision-making regarding the price policy practiced, the quality of products, the distribution network, the sales promotions, the sales force, etc. Hypothesis 1, "Budgetary control of commercial activity must begin with sales control" is thus validated.

At the level of commercial services, not only the turnover should be analysed, but also the sales margin. The sales margin is an indicator of measuring and evaluating the profitability of sales within the company. The sales margin measures the gain from the sale, for any commercial components of the business: products, customers, channels and sales areas. The sales margin helps to identify and analyse the sources of gain and loss of the enterprise sales, to take managerial decisions and to establish commercial policies aimed at optimizing the profitability of the company.

Both budgetary control of the turnover and of the margin can be carried out in detail, as follows (Maxim, 2000, p.477):

- the control by products or models highlighting the products for which the objectives have been achieved and the products for which they have not been achieved;

- the control by type of customer (or even on each customer) which allows the identification of problematic customers;
- the control by distinct regions or (geographic) markets, which provides information on favourable or unfavourable business markets, etc.

It can be concluded that hypothesis 2 "The extension of the management control use in the sales departments leads to the increase of performances in the economic entities of meat industrialization in Romania" is also validated.

5. Conclusions

The budget of the commercial activity is essential and sensitive at the same time. It must be a stimulating tool. The goals must be ambitious but realistic. The business budget, once developed and approved, becomes operational and is executed according to the schedule plan. It is necessary to periodically compare the achievements with the budgeted values in order to identify deviations from the budget and to take corrective actions if necessary. Thus, the budgetary control of the activity is carried out.

In the absence of any economic and financial indicator regarding the commercial activity of an enterprise that is not related to the volume and structure of sales, the budgetary control of the commercial activity must begin with the control of sales, respectively by controlling their physical volume and by controlling the turnover. As this does not measure the effect of turnover on the result, I deemed it necessary to complete this analysis by analysing the sales margin. This way, managers of economic entities are offered tools to ensure asset security, reliability of internal information and to help improve performance.

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The Importance of Accounting Information for Stakeholders

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Abstract

Accounting is the main source of information needed by stakeholders to substantiate decisions. The purpose of this paper is to present the importance of accounting information for all users. In the paper, I researched both the role of information for economic entities and the importance of qualitative characteristics of information for stakeholders. Accounting information is omnipresent in the fields of activity of economic entities, contributing to their modernization and development. Accounting information, one of the most important products offered by accounting, must enable all types of investors, current and potential, to identify, measure and evaluate all the operations and activities of an enterprise in order to determine its efficiency. When properly prepared accounting information allows managers to make appropriate investment decisions and determines current and potential investors to support the entity in its economic endeavor.

Key words: accounting information, stakeholders, accounting, entity, qualitative characteristics
J.E.L. classification: M40, M41

1. Introduction

Globalization and the increasing globalization of capital markets require the use of a single accounting language worldwide. In order to contribute to the stimulation and economic development of each country, the global economic system must be provided with reliable and transparent accounting information.

Accounting information is, without a doubt, in the conditions of economic globalization that characterize the current world economy, one of the main sources of information in any decision-making process.

Accounting activity has a remarkable contribution through its content, which harmoniously combines the abstract theory with the reality of the studied phenomena. It provides a correlated and verified information system, leaving no room for subjectivism and promoting stringency and accuracy in reflecting economic and financial phenomena.

Currently, the future of a company is relying on the realization and possession of one of the greatest resources, namely information.

Today, financial-accounting information has evolved due to the development of the market economy, multipurpose economic transactions, as well as the modernization of the activities of economic entities. Thus, the financial-accounting information describes the situation of assets and liabilities, the results obtained, as well as the use of both human and material resources by stakeholders (Miloș, 2012, p. 109).

2. Literature review

"Information is an abstraction, a product of intelligent knowledge, but also a pervasive reality. It dominates and explains the universe, obviously to the extent reached by the process of knowledge" (Horomnea, 2013, p. 128). As an abstract concept, the information must be substantiated on a concrete support for the collection, processing, transmission and storage. The concrete expressions of this abstract information are called data, being made up of numbers, words, colors, symbols,

sounds, etc. The progress of society's information needs was determined by both the progress of social and natural systems, contributing to the "development of the economic information system, its components, operative accounts, accounting and statistics." (Dănescu, 2000, p. 14).

According to Oprea (1999, p. 21) ,,The economic information system (SIE) is the set of means and procedures used for obtaining, storing and using information in a perimeter of economic activity, as a result of investing in human capital resources. " The ultimate goal of information is to be used in all decision-making processes of economic entities.

In modern management, the "information is an essential element of decision-making" approach is mandatory. In economic practice, accounting is an essential component of the managerial information system, its core in fact (M.I.S. – Management Information System)" (Belverd et al., 2000).

A company's specific information can be quantitative (monetary quantifiable) and qualitative (subjective or non-monetary). From an accounting perspective, most of the information is quantitative, but accounting reports also contain non-monetary information, forming a whole (Anthony et al., 2010).

Financial accounting is ,,generating public information contained in synthetic documents (balance sheet, profit and loss account, statements of changes in equity, cash flow statements, explanatory notes to the annual financial statements) intended primarily for external users" (Horomnea, et al. 2017, p. 93), but needed by internal users (managers) as well. The purpose of this accounting is to record all economic operations that affect the entity's equity in order to calculate the financial result. This type of accounting is organized and managed on the basis of uniform rules, which are compulsory for all businesses. (Munteanu et al., 2020, p. 32; Toma, 2018, p. 18; Horomnea, 2013, p. 146). The annual financial statements are ,,the most representative product of financial accounting and the main means of informing internal and external users" (Toma, 2018, p. 18).

Management Accounting produces ,,confidential information contained in documents, and analyzes, for company's internal use, especially for the operational management of the company, including the correction on the spot of any deviations from the estimated parameters" (Horomnea, 2013, p. 146). This management information is necessary for managers; it is not standardized, often is non-monetary and ,,is organized by each company according to the specifics of its activity and its own needs; include information on unit cost of products, profitability per product" (Munteanu et al., 2020, pp. 32-33).

These two types of accounting are joined by accounting for taxation (Anthony et al., 2010) because there are situations when tax requirements differ from accounting regulations.

According to the opinion of the authors Lungu and Caraiani (2018, p.12), the accounting information is divided into three main categories:

- ,,information on operations, necessary to run an organization;
- financial information, necessary for both managers and third parties (investors, banks and creditors, government agencies, the public);
- managerial information, necessary to fulfill the three functions of an organization: planning, implementation and control".

3. Research methodology

The research method used is based on analysis, observation and, of course, the interpretation of information obtained from specialized books on accounting information.

4. Findings

4.1. The role of information for economic entities

Economic information represents the information produced and used by all economic entities in their activities. In optimizing managerial processes, information plays an important role because it examines how to use all resources, namely: financial, material and human ones (Horomnea, 2013, p. 131). American economist Hybe finds that of the total information circulating within an economic

unit, about 80% is information of an economic nature, and out of these 47% is information of an accounting nature.

Information plays a major role in economic entities, because it is the basis for both planning and analysis activities, being also a signaling mechanism, and measures the success of all activities. Thus, at the microeconomic level, information is a means of fulfilling legal obligations, communication objectives and all economic decisions.

The importance of information is reflected by their diversity within the entities, each one being analyzed in detail, while having a separate function. Therefore, we consider it necessary to address the different types of economic information, which are classified according to several criteria, presented in Table no. 1.

Table no. 1. Types of economic information

Classification criteria	Information and brief presentation
1. the level at which it circulates	- at macroeconomic level - within the national economy or strategic branches; - at microeconomic level - within the entity, the company.
2. mode of expression	- oral - transmitted directly, orally; - written - contained in documents, registers; - audiovisuals - transmitted by telephone, fax, film, etc.
3. direction of travel	- ascendant - transmitted to higher levels; - descendant - transmitted to lower levels; - horizontal - transferred between departments at the same level.
4. scope	- synthetic - reflects general knowledge; - analytical - reflects in detail the entire activity.
5. destinations	- internal - used within the company; - external - specific to third parties.
6. contents	- planning - refers to future activity; - actual - showing operation of the actual economic phenomena and processes; - control - is done by comparing the planning information with the actual one, detecting deviations.
7. the purpose pursued	- for current management - is presented in the form of decisions developed by managers; - for reporting - sent by subordinates to managers, on the activity of the economic entity; - for adjustment - is achieved by comparing the objective parameters with the real one.
8. reflection over time	- active - refers to the actual operation of economic activity; - passive - refers to the economic processes and phenomena carried out, - forecast - refers to future economic phenomena and processes.
9. origin	- endogenous - procured from internal sources; - exogenous - procured from external sources.

Source: (Adaptation and processing after Horomnea E., 2013, pp. 131-133; Costuleanu C. L., 2012, pp. 30-31.)

When properly prepared accounting information allows managers to make appropriate investment decisions and determines current and potential investors to support the entity in its economic endeavor. In this regard, accounting information must have certain characteristics and meet certain conditions in order to be effective.

4.2. The importance of qualitative characteristics of information for stakeholders

The concept of quality specific to accounting information originates from both the definition and the characteristics of accounting communication process and consist of the determination of ,,quality

criteria" or „qualitative characteristics" for drawing up a measuring instrument. According to ISO 9000:2015, quality is defined as the totality of the specific characteristics of an entity, material or immaterial that gives it the ability to meet expressed or implied needs.

The status of communication language that belongs to accounting is in a permanent dynamic transformation, trying to establish itself on new, high-performance bases and gaining special values, in the conditions of the explosive development of communications technology. The efficiency of financial communication depends very much on the quality of accounting information.

The evolution of society has led to economic development which, in turn, caused an expansion of the concept of information, imposing an improvement of the economic and financial information. Both globally and in the European Union, specific standards and norms have been developed, which influence the way information is collected from the accounting system. According to specialists, most of the information in the economic environment is conveyed by accounting through accounting information.

The importance of a feature differs from country to country, changing over time.

The quality of accounting information is evaluated according to the objectives of the information, the users' information needs, so that the information provides a complete, clear, fair and accurate description of the economic phenomenon to which it refers. There are two categories of qualitative characteristics of financial information, which we will be presented in Table no. 2.

Table no. 2. Qualitative characteristics of accounting information

Qualitative characteristics	Presentation
1. fundamental qualitative characteristics	- **relevance** implies the potential of financial information to influence decision-making, having either predictive or confirmatory value, or both; the confirmatory value provides feedback on previous assessments, while the predictive value makes it possible to use the information in assessing future results. In shaping this concept, a special place belongs to **the significance threshold** as a value of relevance, with an entity-specific nature, generated by the nature or size of the elements described in the set of financial reports; we acknowledge that the information, disseminated by the reporting entity, is significant if its exclusion or misrepresentation is likely to influence the decisions taken by users. **- exact representation** refers to the fact that the information must accurately reproduce the object-phenomena of the representation, and in order to fulfill this desideratum, a description must be neutral, complete and free of errors. The full description implies the presentation of additional explanations regarding the significant events in terms of nature, quality and context of the generating elements, while the neutrality in the choice and presentation of information refers to the elimination of manipulation and changes made to obtain a favorable image.
2. amplifying qualitative characteristics	- **comparability** facilitates the process of recognizing and understanding the similarities and differences between elements; we note the premise that a comparison requires at least two elements; comparison should be possible both in space and in time. - **consistency** helps to achieve this comparability goal and involves the use of the same set of methods for the same categories of items in the succession of financial years or for separate entities within the same period.
	- **verifiability** implies the possibility of reaching a consensus between independent, distinct and knowledgeable observers on the exact representation attribute associated with a specific description. There are two approaches to this concept: direct verifiability (verification is done by direct observation) and indirect verifiability (involves recalculating results by applying the same calculation methodology and verifying input data).
	- opportunity involves the availability of information to be used by decision-makers in a timely manner to impact their decisions, so the information must be appropriate to the situation and provided in a favorable manner.

	- **comprehensibility** refers to the clear and concise presentation of all relevant economic phenomena and events; to fulfill this aspect, the completeness of information must not be sacrificed by omitting the complex phenomena from the presentation, but must be found the way to present completely, clearly and concisely all economic events and phenomena that are likely to influence the decisions of accounting information users.

Source: own projection

Financial information represents the connection between the communication achieved between the economic entity and those interested, from both internal and external economic environment. Financial information is composed of accounting information based on a balance sheet, a profit and loss account, a cash flow statement and a statement of changes in equity. The final form of financial information is materialized in the financial statements elaborated by the entity.

5. Conclusions

Accounting information is, without a doubt, in the conditions of economic globalization that characterize the current world economy, one of the main sources of information in any decision-making process. From reports on the production obtained to elaboration of the annual financial statements, the motivation is the same: to support various categories of users, from different countries of the world, in substantiating the optimal decisions.

Financial information is a key component of accounting, which is the process of communicating data about an economic entity. The financial information is presented in a structured manner, specific to each entity, which is regulated and accepted by the accounting staff.

Financial information should be processed in order to reflect economic activity, but should also be treated carefully by management to ensure customer security and prevent their misuse. Financial information held by large entities is more complex, often including a comprehensive set of notes and explanations of financial policies.

In conclusion, the accounting information provided by the annual financial statements is the most important tool for communicating the economic and financial situation of an entity.

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