Overall Impact of Specific Regulations on the Statutory Auditor's Behavior

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Abstract

The level of audit regulation has seen an accelerating dynamic in recent years, with the issue of auditor independence increasingly highlighted in the regulations. In Romania, at the level of public institutions, there are, according to the latest reports, vulnerabilities in terms of transparency and the level of cooperation with auditors, manifested by the issuance of qualified audit reports on the basis of events such as the lack of inventory or transparency in the provision of information for audit (failure to issue the audit report). In this context, we proposed to carry out an impact study on the behavior of the statutory auditor in the context of specific regulations and to develop an auditor independence model. The used methods used consist of literature review, econometric modelling and critical impact analysis. The results of the study will highlight the vulnerabilities induced by the level of auditor turnover on the economic performance of public institutions and are useful to decision makers in order to optimize audit practices.

Key words: audit, auditor independence, audit opinion, economic return, auditor rotation

J.E.L. classification: H83, M42

1. Introduction

In Romania, in addition to privately owned companies, there are central public enterprises whose purpose is to provide products and services that are fundamental for the functioning of the Romanian economy and social security. The areas in which the Romanian state manages access to resources are: energy, transport and infrastructure, banking and environmental protection. In 2021, there were 846 central public enterprises in Romania, of which 409 with majority public participation and 437 with minority participation (Ministerul Finanțelor Publice, 2022). In order to ensure the traceability of their activities, public enterprises are obliged to provide the general public with information of general interest on their websites, such as the structure and competence of the management bodies, the code of ethics, annual financial statements and audit reports.

According to a national survey conducted in 2021, the audit of the financial statements of this type of entities encountered problems of public dissemination especially in the case of local public enterprises, with situations where the audit opinion could not be expressed. As of 2021 there are a number of 3 local public entities in this situation. As regards the type of audit opinion, in most cases, this opinion was expressed without reservation. The reasons for expressing a qualified opinion are: non-participation of the auditor in the inventory, non-constitution of provisions in some cases or issues of the certainty of income reported in the financial statements.

It results that the role of auditors in strengthening financial discipline is essential, so it is recommended to implement some recommendations made by them in the annual audit reports. Also, the issues of auditor independence and the quality of fraud and error monitoring can be key elements in identifying errors that can ultimately contribute to reducing or even eliminating losses recorded by some of these public entities. In line with the role of the statutory auditor, an important aspect is the discussion with the audit committee on threats to independence and measures taken to mitigate this threat (Petre and Lazăr, 2009).
Specific regulations influencing the role of the statutory auditor are defined at European and national level (see Figure 1).

**Figure no. 1. European and national audit and corporate governance regulations**

**European regulations**

**National regulations**
- Government Emergency Ordinance No. 75/01.06.1999 on financial audit activity
- Government Emergency Ordinance no. 90/24.06.2008 on statutory audit of annual financial statements and annual consolidated financial statements

**Specific regulations on corporate governance**
- Order of the Minister of Public Finance No 2873/2016 on the regulation of the reporting procedure of some economic and financial indicators
- Order of the Minister of Public Finance No 1952/2018 on regulating the procedure for monitoring the implementation of GEO 109/2011

**Tertiary regulations**
- ORDER no. 260/09.06.2020 for the approval of the Rules on inspections of financial auditors and audit firms performing statutory audit activities
- ORDER No 270/2020 of 7 July 2020 on the establishment of the standard form of the Official Statement of Offence and Penalty Report
- ORDER No 272/2020 of 9 July 2020 amending and supplementing the Rules on continuous professional training of financial auditors, approved by Order of the President of the Authority for Public Oversight of Statutory Audit Activity No 90/2018
- ORDER No 273/2020 of 10 July 2020 approving the Rules on the conduct of investigations in order to detect, correct and prevent improper performance of statutory audits
- ORDER No 274/2020 of 10 July 2020 amending and supplementing the Rules on the authorisation of financial auditors and audit firms in Romania
- Order no.298 of 31.07.2020 approving the Rules for establishing the situations in which preventive measures are applied according to Article 39 of Law no. 162/2017
- ORDER No 224/2020 of 28 April 2020 supplementing the Rules on the granting of the annual visa for the exercise of financial audit activity
- ORDER No 266/2018 of 12 November 2018 approving the Rules on reporting to the Authority for Public Oversight of Statutory Audit Activity of breaches of statutory audit regulations
- Order No 405 of 5 October 2022 on the adoption of the International Code of Ethics for Professional Accountants
- ORDER No 499/2022 of 14 December 2022 on the adoption of the Manual of International Regulations on Quality Control, Audit, Review, Other Assurance and Services

**Source:** Realized by the author

The need to provide relevant and reliable information to all parties interested in the financial statements published by a company or institution legitimizes the existence of the financial auditor. In order to avoid opportunistic dissemination of financial information, the auditor intervenes to lend credibility to this information, through the capacity with which it is invested - to attest them (Ardelean, 2014). The auditor has a responsibility to act in the public interest, which implies that, in addition to the professionalism and confidentiality he or she places at the service of the client, the auditor will seek to respect and embrace the moral values described by the ethical rules (Cheffers and Pakaluk, 2007).

Furthermore, the auditor's honesty and integrity are reflected in the public's perception through their level of trust. Code of ethical and professional conduct (Batrancea, 2006; Autoritatea pentru Supravegherea Publică a Activității de Audit Statutar, 2022) states that the objectives of the financial audit profession are to carry out work to the highest standards of professionalism, to achieve the
highest level of performance and generally to meet the requirements of the public interest. In this regard, the Code of Ethics issued by IFAC (Autoritatea pentru Supravegherea Publică a Activității de Audit Statutar, 2022) describes the five principles of ethics, namely integrity, objectivity, professional competence and due care, confidentiality and professional conduct. These fundamental principles are best applied by auditors to identify those threats that could compromise the compliance of an audit process in order to avoid them. The IFAC Code of Ethics also describes some specific situations that illustrate the framework that may create threats to auditors. The importance of auditor independence has also been tested in the context of the recent financial crisis, with voices questioning the integrity of external auditors and their possible complicity in issuing misleading reports (in the case of Lehman Brothers we are considering the reporting of credit-related transactions known as Repo 1052).

Prior to this time, a series of accounting scandals in the early 2000s prompted measures to preserve auditor independence. Clearly, financial scandals involving auditors have resulted in a deterioration of the reputation of the profession. As stated above, the public perception of auditor independence is reflected in the level of confidence the community places in an audit report. In order to maintain a high level of confidence, auditors must be independent in fact as well as in appearance. Although there are a number of factors that can interfere with their independence and objectivity in the audit engagement, concerted international action is being taken to neutralize and even eliminate these risk factors or challenges. Maintaining auditor independence often has to pass the test of the auditor's relationship with the client's management, in the context of the client appointing the auditor and paying the auditor's fees. It is clear that a compromise of independence can have serious consequences for the profession, and it is desirable that auditors properly identify possible threats that could interfere with the proper conduct of an audit. Therefore, measures have been and continue to be taken at international level to protect the good reputation and credibility of auditors as a barometer of public confidence.

Strengthening public confidence in the profession is promoted by IFAC through the promotion of high ethical and professional standards. High standards, built on a code of ethics, directly influence the quality of the audit and consequently the credibility of the audit is strengthened (Davenport and Dellaportas, 2009).

The Code of Ethics issued by IFAC, a professional body whose aim is to protect the public interest, provides a framework for threats that disrupt the work of professional accountants and auditors. The risks have been grouped into five categories of pressures that are likely to adversely affect the work of auditors. Thus, the circumstances that may generate threatening situations for auditors are based on internal factors and external factors that have a negative impact on their independence and objectivity. If the challenges are internal in nature then they are influenced by the auditors' perception of their own work, and if they are external in nature, then the audited client's management is involved and has an interest in presenting the financial statements in the most favorable light. The IFAC Code of Ethics refers to the most common challenges facing auditors and presents a classification of threats. Thus, self-interest threats are triggered when the auditor has a direct financial or material interest in the company he is auditing, while threats related to the evaluation of his own work occur when the auditor is also involved in the preparation of the audited client's financial statements and is likely to evaluate the work he has performed. Obviously some threats can be counted as advantages, in this sense familiarity can be considered as a contributing element to a quality audit due to a very good knowledge of the client. In the same vein, threats of intimidation arise when the client pressures the auditor to give an unqualified audit opinion and warns the auditor that he will not renew the engagement otherwise.

The objectives of the study are to:

O1. Literature review to identify the impact of specific regulations on the status of the auditor.
O2. Carrying out a panel of data for representative national public institutions in order to identify elements of uncertainty induced by the rotation of auditors under the effect of specific regulations in the field.
O3. Constructing an audit independence model based on the observations of the data panel.

The study continues with a literature review, methodological approach, presentation of the main research results and conclusions.
2. Literature review

In the literature, the study of auditor behavior is conducted in terms of the effects on the audit results and the financial performance of the audited company.

The quality of audit missions in the case of companies belonging to Big4 is quantified with the help of statistical surveys by Che et al. (Che, Myllymäki and Svanström, 2023). The analysis refers to audit firms belonging to Sweden's Big4 and shows that auditors who prioritize the client tend to rate the overall quality of the audit as higher. The quality of the audit is influenced in their opinion Hou et al. (Hou et al., 2023) by the auditor's political affiliation. The analysis covers the period 2001-2019 and refers to companies listed on the Chinese stock exchange. The authors conclude that there is a positive relationship between the quality of the audit activity and the auditor's political affiliation. The quality of the audit can also be influenced by the sanctioning of the auditor. Li et al. (Li et al., 2022) carry out an analysis in which they find that sanctioned auditors increase audit fees and the reporting gap. In support of this hypothesis, the authors use specific tools to measure audit quality such as abnormal engagements, modified audit opinion, F score and restatements, concluding that audits that have been sanctioned increase audit quality. Audit quality is also analyzed from the perspective of audit firms' culture by Alberti et al. (Alberti et al., 2022), with the help of a three-phase model that quantifies the mechanisms of cultural incorporation, perceptions of the existing culture and the consequences of culture.

The research finds that an essential role in the development of the audit firms' culture is played by the openness of their management. The same issue is addressed by Eulerich et al. (Eulerich et al., 2023) through the lens of the costs and benefits of technology-based auditing techniques. Although the general idea is that these techniques are beneficial for the audit activity, by identifying more risk factors and recommendations and by reducing the duration of the audit. These immediate benefits are countered by the costs of technology implementation, material and labor costs, the decision to use technologies depending on each individual auditing firm. The quality of the audit can also be associated with the method of issuing the equity offer. Authors such as Dang et al. (Dang et al., 2022) note that American firms with higher quality auditors adopt the method of issuing accelerated offers, which leads to lower audit fees in subsequent years. An interesting approach to audit quality is carried out by Acar (Acar, 2023) and takes into account the implications that the national culture of the country of origin of an auditing firm can have on the auditing activity. The analysis covers 16,444 industrial companies from 51 countries for the period 2009-2019 and uses the Hofstede model. The main finding of the analysis is that the national culture of the countries where the headquarters of the audit firm is located significantly impacts the earnings of the respective firm.

The auditor's evaluation of the risk of significant distortion is influenced in his opinion Zengin-Karaibrahimoglu et al. (Zengin-Karaibrahimoglu et al., 2021) by the audit committee and the manager of the audited company. The authors note a decrease in risk assessments when the audit committee is strong and the manager of the audited company has an appropriate attitude towards the auditing activity. The auditor-client relationship is studied by Agrawal et al. (Agrawal, Wang and Woodliff, 2021), who highlight the importance of an early-stage conversation with an expert management in the auditors' decisions. Such an early discussion can ensure the relaxation of both the auditors and the manager of the audited company and can lead to adjustments that satisfy the interests of both the auditor and the client. An interesting problem related to the audit committee is its efficiency in relation to the stability of the audited company. Nguyen (Nguyen, 2022) found that small audit committees with independent auditors can increase the stability of the audited company by reallocating profits and by providing incentives for holding larger shares of capital. An interesting analysis carried out by Kasper & Alm (Kasper and Alm, 2022) finds that there is a strong relationship of dependence between the efficiency of the auditing activity and the post-audit fiscal compliance of the audited company. Effective fiscal controls have positive effects on post-audit fiscal compliance, while inefficient auditing diminishes this compliance. In the current conditions, the audit activity faces major challenges related to the regulatory space, digitalization, the change in the design of service provision, the audit mode and the auditor's responsibility in the context of the new complex global crises. Ferry et al. (Ferry, Radcliffe and Steccolini, 2022) considers that we can speak of a crisis in public audit, the solution of which seems difficult to achieve.
In this context of the new challenges faced by the current auditing activity, artificial intelligence plays an important role. Fedyk et al. (Fedyk et al., 2022) approaches this topic based on the analysis of the answers given by 310,000 people from 36 large audit firms in the USA. The authors find that the audience that uses artificial intelligence in their work presents special characteristics of age, gender and technical skills. Following the analysis, it is found that artificial intelligence improves audit quality, reduces fees and successfully replaces human auditors. An atypical connection between environmental disasters, resource constraints and the audit environment of the public sector is the subject of a research carried out by Cordery & Hay (Cordery and Hay, 2022). The authors start from the concept of mimetic isomorphism, which they apply to the Supreme Audit Institutions with the help of an international survey and conclude in relation to the modification and the need to adapt these audit institutions to an uncertain future.

Other authors (Yeboah, Addai and Appiah, 2023) discuss the correlation between the audit and the time gap related to the audit fees. The authors find that the reduction in the time for the audit report results in a significant reduction in the paid audit fee. Moreover, the specialization of audit firms in economic branches is supported. There are also concerns regarding the interaction between the auditor's incentives, the auditor's skills and the quality of the audit Velte (Velte, 2022). The authors carry out a large meta-analysis that focuses on the financial restatements of companies and find that the number of these restatements decreases significantly under the influence of the auditor's expertise and the size of the audit company. According to researchers such as Al-Dhamari et al. (Al-Dhamari, Alquhaif and Al-Gamrh, 2022) audit firms are viewed by debt holders as transparent, of lower operational risk and can be associated with lower debt costs. Another interesting research Ghafran et al. (Ghafran, O’Sullivan and Yasmin, 2022) starts from the premise that audit committee members have a negative impact on the quality of earnings. This negative impact increases during the financial crisis and affects the quality of corporate governance. In their opinion Fariha et al. (Fariha, Hossain and Ghosh, 2022), the characteristics of the board of directors and the audit influence the performance of commercial banks. The authors carry out a study based on 30 commercial banks for the period 2011-2017 and find, following MOL modeling, that the independence of the board of directors has a negative and significant relationship with ROA. Authors such as Changwony & Kyiu (Changwony and Kyiu, 2023) believe that companies that employ the services of external auditors and adopt international standards are less likely to be corrupt.

The analysis of specialized literature supports the necessity and opportunity of our scientific approach.

3. Research methodology

In order to achieve the objectives, we set the following working hypotheses:

- H1. The auditor's Big4 affiliation does not significantly influence auditor turnover in public institutions.
- H2. Auditor independence and competence significantly influence auditor turnover in public institutions.
- H3. The risk of non-detection of errors increases in case of lack of auditor rotation.

In order to validate these hypotheses, we proceeded to the study of the transparency outputs of the central public enterprises, selecting a number of 9 enterprises that have fulfilled the transparency requirements for the analyzed period, being monitored the following indicators:

- AuRot(1N2Y) - Auditor rotation in the period 2018-2022, dichotomous variable (1 - without auditor rotation in the period, 2 - with auditor rotation in the period).
- Big4(1N2Y) – auditor's affiliation to the Big4 group (1 - auditor does not belong to the Big4 group, 2 - auditor belongs to the Big4 group).
- Opinion(1WR2R) – type of audit opinion (1 - unqualified, 2 - qualified).
- Texp/TRN – return on total expenditure in relation to turnover.
- ADVI/TRN – return on revenue in advance of turnover.
- EQT/TRN – equity return on turnover.
- FA/TRN – return on fixed assets in turnover.
- CA/TRN – return on current assets in turnover.
- DB/TRN - debt to turnover ratio.
The data on the audit information was collected directly from the companies' websites (National Company of Copper, Gold and Iron "MINVEST" S.A. Deva, Lower Danube River Administration, Waterways Administration, Sea Ports Administration, Oltenia Energy Complex, National Company for Road Infrastructure Administration, National Company for River Danube Ports Administration SA Giurgiu, Autonomous Regia for Nuclear Activities and Romarta SA) based on the audit reports published in 2018-2022. Financial data for the period 2018-2022 were collected from the website topfirme.com (TopFirme, 2023). The data were processed using IBM-SPSS 26 statistical software, and the calculation of Pearson correlation coefficients of the variables resulted in custom equations of auditor turnover variation with respect to the variables presented above.

\[
\begin{align*}
AuRot(1N2Y) = & -0.019 \cdot Texp/TRN + \varepsilon \\
AuRot(1N2Y) = & 0.11 \cdot Opinion(1WR2R) + \varepsilon \\
AuRot(1N2Y) = & -0.047 \cdot ADVI/TRN + \varepsilon \\
AuRot(1N2Y) = & 0.081 \cdot EQT/TRN + \varepsilon \\
AuRot(1N2Y) = & -0.134 \cdot CA/TRN + \varepsilon \\
AuRot(1N2Y) = & -0.127 \cdot DB/TRN + \varepsilon
\end{align*}
\]

From the equation system (1), it follows that the change in auditor turnover is inversely proportional to the economic return expressed as the ratio of various economic and financial indicators and turnover. The only exception is the equity return, which in the case of public entities is represented by a multitude of redundant assets with low use value, thus expressing an enterprise value that is inconsistent with the market value. It can be seen from the system of equations that there is a direct proportional relationship between auditor turnover and audit opinion.

We performed the independence model on the basis of a multiple linear regression with a statistical significance level of over 50%, which means that there is a strong connection between economic return, auditor turnover and audit opinion and the other economic indicators analyzed (see Table 1).

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
<td>F Change</td>
<td>df1</td>
</tr>
<tr>
<td>1</td>
<td>0.787</td>
<td>0.619</td>
<td>0.059</td>
<td>0.619</td>
<td>10.294</td>
</tr>
</tbody>
</table>

**Source:** Realized by the author using SPSS statistical software vers. 26

By designing the ANOVA test using SPSS software, the independence model was validated in the sense of obtaining representation rates of the regression squares values higher than the residual squares, the validity of the model being confirmed by the representativeness of the errors within the chosen significance threshold (α<0.05, see Table 2).

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>6</td>
<td>4.872</td>
<td>10.294</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>38</td>
<td>0.473</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>44</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Realized by the author using SPSS statistical software vers. 26

Homogeneity testing of the data was performed with the nonparametric Kolmogorov-Smirnov test, which validated the homogeneity of the panel data, resulting in error representation rates close to 0, allowing the rejection of the null hypothesis and the validation of the alternative hypothesis according to the data in Table 3.
Table no. 3 Hypothesis Test Summary

<table>
<thead>
<tr>
<th>No</th>
<th>Null Hypothesis</th>
<th>Test</th>
<th>Sig. a</th>
<th>H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The distribution of AuRot(1N2Y) is normal with mean 1 and standard deviation .367.</td>
<td>One-Sample Kolmogorov-Smirnov</td>
<td>0.000</td>
<td>Reject the null hypothesis.</td>
</tr>
<tr>
<td>2.</td>
<td>The distribution of Big4(1N2Y) is normal with mean 1 and standard deviation .367.</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>The distribution of Opinion(1WR2R) is normal with mean 1 and standard deviation .503.</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>The distribution of Texp/TRN is normal with mean 1.638 and standard deviation 1.035858.</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>The distribution of ADVI/TRN is normal with mean 5.554 and standard deviation 5.805786.</td>
<td>0.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>The distribution of Opinion(1WR2R) is normal with mean 1 and standard deviation .503.</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>The distribution of EQT/TRN is normal with mean 19.362 and standard deviation 28.638411.</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>The distribution of FA/TRN is normal with mean -.986 and standard deviation 11.014853.</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>The distribution of CA/TRN is normal with mean 7.988 and standard deviation 19.307105.</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Asymptotic significances are displayed. The significance level is .050.

*aLilliefors Corrected

Source: Realized by the author using SPSS statistical software vers. 26

The histogram distribution of the variables according to the nonparametric tests performed in SPSS26 software shows a polarization of auditor turnover towards the low turnover area for the selected sample of firms and a representation of small auditors from outside the Big4 in the audit group, with the majority opinion being "unqualified", as shown in Figure 2.

Figure no. 2. Histogram distribution of indicator values using the Kolmogorov-Smirnov test

Source: Realized by the author using SPSS statistical software vers. 26

From Figure 2 above, it can be seen that the economic performance of firms is predominantly low, with points of maximum clustering observed in the lower area of performance. In terms of return on capital, a variation with predominantly positive values is observed around the range 0-10000 monetary units.

The analysis of the effect of auditor independence through auditor rotation and audit opinion is reflected on the economic return on expenditure through three clusters, of which that of non-Big4 auditors is predominantly in the lower median area of performance (marked in red in the graph), while the Big4 effect is quantified with impact on return by shifting the position in the graph to the upper median area (with blue), (see Figure 3).
The proposed independence model has a high degree of replicability through the methodology explained in detail and demonstrates that auditor independence has an effect on economic performance.

4. Findings

As a result of data collection, the panel layout was developed and its descriptive-statistical characteristics were analyzed using IBM-SPSS26 software and the case summary table was drawn up (Table 4).

Table no. 4 Case Summaries

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Big4</th>
<th>Opinion</th>
<th>GP/</th>
<th>Texp/</th>
<th>ADVI/</th>
<th>EQT/</th>
<th>FA/</th>
<th>CA/</th>
<th>DB/</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Without auditor’s rotation during 2018-2022</td>
<td>Mean</td>
<td>1.16</td>
<td>1.42</td>
<td>0.12</td>
<td>1.65</td>
<td>5.67</td>
<td>-1.36</td>
<td>20.90</td>
<td>9.08</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>1.00</td>
<td>1.00</td>
<td>0.05</td>
<td>1.27</td>
<td>3.80</td>
<td>1.21</td>
<td>6.41</td>
<td>0.94</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>0.37</td>
<td>0.50</td>
<td>0.49</td>
<td>1.06</td>
<td>5.87</td>
<td>11.97</td>
<td>30.32</td>
<td>20.83</td>
</tr>
<tr>
<td>2 With auditor’s rotation during 2018-2022</td>
<td>Mean</td>
<td>1.14</td>
<td>1.57</td>
<td>0.03</td>
<td>1.59</td>
<td>4.93</td>
<td>1.06</td>
<td>11.04</td>
<td>2.05</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>1.00</td>
<td>2.00</td>
<td>0.05</td>
<td>1.20</td>
<td>4.76</td>
<td>1.19</td>
<td>5.49</td>
<td>0.77</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>0.38</td>
<td>0.53</td>
<td>0.26</td>
<td>0.98</td>
<td>5.83</td>
<td>0.73</td>
<td>15.83</td>
<td>3.19</td>
</tr>
<tr>
<td>Total</td>
<td>Mean</td>
<td>1.16</td>
<td>1.44</td>
<td>0.11</td>
<td>1.64</td>
<td>5.55</td>
<td>-0.99</td>
<td>19.36</td>
<td>7.99</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.37</td>
<td>0.50</td>
<td>0.46</td>
<td>1.04</td>
<td>5.81</td>
<td>11.01</td>
<td>28.64</td>
<td>19.31</td>
<td>49.44</td>
</tr>
</tbody>
</table>

From Table 4, it can be seen that the distribution of the data series by Big4 auditor criteria shows that in the case of Big4, audit firms tend to have a higher turnover than non-audit firms. The level of turnover does not increase significantly for public firms due to their financial strength, which does not significantly affect the cost of auditing, but also due to procurement procedures that are more cumbersome in public institutions, which is why we estimate that the Big4 membership of the auditor does not significantly influence the turnover of auditors in public institutions (proving working hypothesis H1). This evolution analyzed by the Poisson posterior distribution effect is shown in Figure 4.
From the audit opinion point of view, there is an increase in the intensity of auditor turnover on the criterion of thoroughness in detecting errors, which means that auditor independence and competence significantly influence auditor turnover in public institutions (proof of working hypothesis H2). This evolution analyzed by the Poisson posterior distribution effect is shown in Figure 5.

Figure no. 5. Posterior distribution characterization for Poisson inference regarding auditor’s opinion

Source: Realized by the author using SPSS statistical software vers. 26

As for the expenditure yield, it can be seen from Table 1 that it is higher in the case of no auditor rotation, and the level of standard deviation assimilated to the spectrum of variation of the distribution is higher in this case, which means that the risk of non-detection of errors increases in the case of no auditor rotation (proving the working hypothesis H3). This hypothesis is also validated by observing the statistical distributions of the other indicators: ADVI/TRN, EQT/TRN, FA/TRN, CA/TRN and DB/TRN. This analyzed evolution by the Poisson posterior distribution effect is shown in Figure 6.

Figure no. 6. Posterior distribution characterization for Poisson inference regarding auditor’s rotation

Source: Realized by the author using SPSS statistical software vers. 26

From the presented analysis, it appears that auditor independence and auditor behavior influence the detection of elements of fraud and error in public institutions by means of statutory audit, these aspects being enhanced by legislative changes in the field.

5. Conclusions

The author aimed to carry out an impact study on the influence of auditor independence and rotation on the economic performance of the firm in the context of new national and European audit regulations. In this respect, the objectives of the research were achieved, the author conducting a literature review and proposing an econometric model of independence, which was statistically validated during the research.

During the study, it was shown that: the auditor's Big4 affiliation does not significantly influence auditor turnover in public institutions; auditor independence and competence significantly influence auditor turnover in public institutions; and the risk of non-detection of errors increases in case of lack of auditor turnover.
The results of the study are useful for decision-makers to optimize audit practices. The limitations of the study are given by the relatively small number of companies and analyzed indicators, as well as the time period for which the analysis was carried out, the author proposes to further develop the proposed model in order to improve its results.

6. References


