

## The Seasonality in the Number of Overnight Stays by Residents in Romania and Bulgaria and Its Ranking in Connection to the EU Average Level

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### Abstract

*Studying the evolution of tourism over time, especially on the short or intra-annual term, highlights the seasonality of this economic activity. The main objective of this paper is represented by the comparative analysis of the seasonality recorded in the tourism activity, using the indicator "the number of overnight stays by residents" in Romania and Bulgaria, as well as its ranking in connection to the average seasonality registered in the EU member countries.*

*For the purpose of our quantitative research, we processed a database comprised of the monthly values of the "total number of overnight stays by residents", recorded from January 2005 to December 2016, using the moving average method and the seasonality coefficient. We believe that this information may be especially useful to the decision-makers of the Romanian tourism activity in the conception of the tourism development strategy.*

**Key words:** number of overnight stays, tourist seasonality, seasonality indices

**J.E.L. classification:** C10, C21, C53, M21, J63, Y32, Z33

### 1. Introduction

Romania and Bulgaria are two countries that became members of the EU at the same time, i.e. in 2007, being located in the same European region, having a similar economic and political evolution. These two countries are perceived as two competing tourist destinations. To a large extent, the components of the tourist product offered by the two countries are similar; however, the evolution of tourist activity (in recent years) in the two countries is different. In this study, we sought to analyze the evolution of seasonality using "the number of overnight stays by residents" as an indicator, in order to compare the residents' tourist activity from the two countries, as well as the average recorded in the EU. The results of the research are of a quantitative nature (related to the measurement of the intensity and dynamics of the seasonality in tourist activities), but also of a qualitative nature (represented by the identification and comparison of some aspects typical of the resident tourists' behavior in Romania, Bulgaria and at the EU-28 level).

### 2. Literature review

The competition between tourist destinations/ products has been transferred increasingly from natural and anthropic factors to expectations, perceptions, emotions offered, and experiences. For certain tourist segments, wishes have diversified extensively, leading to the formation of tourist niches (with different purchasing and/ or consumption behaviors), and these aspects have become criteria for the choice of holiday destinations (Herteanu, 2013). In this context, Morgan & Pritchard

(2001, p. 214) stated that "the battle for customers in tomorrow's tourism industry would be given not for the price but for the customers' minds and hearts" (Stăncioiu & all, 2011).

As stated by Taleb Rifai, Secretary General of UNWTO (2016), the current period is characterized by the travel revolution and by the revolution in the IT & C sector. The "travel and tourism" movement has now become a life component, a part of the culture of the contemporary human being; it is also a true driver for economic, social, cultural and even political transformations. Referring to the current importance and size of tourism, Bigovic (2011, p.16; 2012, p.102) states that tourism has become a specific phenomenon of the modern world, and points out that seasonality is "one of the most visible features of modern tourism".

In order to explain seasonality as a way of evolution of tourist activities, it is necessary to analyze its formative and limiting factors and to understand its action. Thus, BarOn (1975) distinguishes two important categories, i.e. natural factors and institutional factors, respectively. Koenig-Lewis and Bischoff (2005) state that natural factors are represented by climate and temperature conditions; they are predictable and resurface at known time intervals. Bigovic (2012, p.103) considers that institutional factors refer to traditions, customs, historical and religious holidays, legislation and the structure of the school year. According to Butler (1994), tourism seasonality is also influenced by factors such as fashion, imitation, inertia, social pressure, but also by other factors that can be found in the manifestation of the tourism demand and in the tourists' purchase and consumption behavior.

When considering seasonality in the literature, most of the time, only the tourism demand is discussed; for example, Biedermann (2008) considers that the permanent feature of seasonality is represented by a sudden change in demand. In this context, Butler (1994) points out that most studies on seasonality focused on analyzing demand patterns, describing seasonality in certain tourist destinations, identifying its negative effects and the policies needed in order to fight against the effects of seasonality.

### **3. Research methodology**

This study includes a quantitative research measuring the intensity and dynamics of the seasonal concentration of tourist activities in Romania, Bulgaria and the EU. For this purpose, we processed a Eurostat database (source: Nights spent at tourist accommodation establishments by residents/non-residents monthly data), represented by the monthly values of a suggestive indicator of the tourist traffic, i.e. "the number of overnight stays by residents", from January 2005 to December 2016, for "Hotels and Similar accommodation establishments". As research tools, we used the moving average method for calculating the deseasonalized series and the seasonality coefficients for concentration assessment. As a computer support for data processing, we used the EViews 5 program.

### **4. Results and discussions**

The coronogram of "the number of overnight stays by residents" from January 2005 to December 2016, in Romania, Bulgaria and the EU-28, obtained by EViews, is shown in Figure 1.

The following aspects are significant:

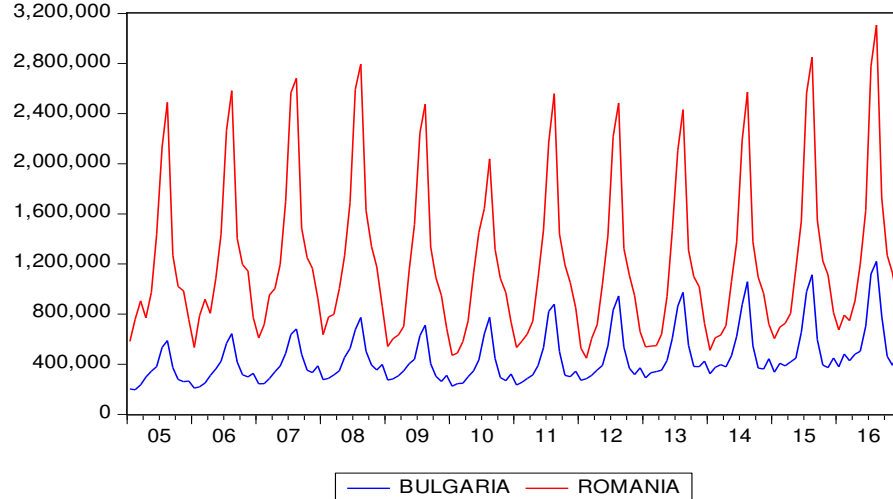
- Over the analyzed period, Romania presents large variations in "the number of overnight stays by residents" (increases and decreases) from one year to the next. The lowest level of this indicator was registered in 2010 and the highest level was recorded in 2016. Romania also recorded a decreasing trend in this indicator in the period 2008-2010. This reveals that, over this period, the Romanian tourists were less attracted to the tourist destinations from Romania, or as a probable consequence of the economic/ financial crisis, which triggered a decrease in incomes, the Romanians also reduced their holiday expenses in the country.

- Bulgaria recorded much lower levels of "the number of overnight stays by residents" compared to Romania. The minimum value of this indicator was reached in 2005 and the maximum – in 2016. The trend went slightly upwards over the period 2005-2016, and an insignificant decrease was registered in 2009 and 2010, compared to 2008. Under these circumstances, it can be

said that the effects of the economic crisis did not lead to significant changes in the behavior of the resident tourists from Bulgaria;

- At the EU level, we notice a sinusoidal and slowly growing trend of the correlation, at a somewhat constant pace, throughout the analyzed period. The lowest level of the residents' overnight stays was recorded in the EU in 2005 and the highest level was registered in 2016

Figure no.1 Evolution of the indicator "the number of overnight stays by residents" in Romania and Bulgaria, 2005-2016



Source: Author's own results obtained by processing Eurostat data, by EViews

Table no. 1 Seasonality coefficients for the indicator "the number of overnight stays by residents", per month, between 2005 and 2016, in Romania, Bulgaria and the EU

Month	Seasonality coefficients in Romania	Seasonality coefficients in Bulgaria	Seasonality coefficients in the EU
Jan	0.519857	0.668048	0.694439
Feb	0.588096	0.729248	0.763884
Mar	0.648213	0.761260	0.881415
Apr	0.729559	0.846372	0.945989
<b>May</b>	<b>1.028077</b>	0.984950	<b>1.042977</b>
<b>Jun</b>	<b>1.394200</b>	<b>1.266875</b>	<b>1.197619</b>
<b>Jul</b>	<b>2.085008</b>	<b>1.797920</b>	<b>1.479898</b>
<b>Aug</b>	<b>2.365847</b>	<b>2.031108</b>	<b>1.699320</b>
<b>Sep</b>	<b>1.306959</b>	<b>1.193235</b>	<b>1.199263</b>
Oct	1.075380	0.841462	1.000796
Nov	0.970332	0.780422	0.786450
Dec	0.717299	0.892240	0.762502

Source: Author's own results obtained by processing Eurostat data, by EViews

By analyzing the values of the seasonality coefficients (indicators) presented in Table 1, the following aspects were revealed:

- In Romania, over a six-month period, the values of the seasonality coefficients for "the number of overnight stays by residents" are higher than 1. From May to September, there is a concentration of the Romanian residents' holidays in their own country. Coastal tourism becomes the main attraction for resident tourists and it has a significant influence on the seasonality of the tourist activities carried out in Romania. The seasonal peak is recorded in July and August, the concentration of the activity (given by seasonality coefficient values) being higher in Romania (2.08 and 2.36) compared to Bulgaria (1.79 and 2.03), but also to the EU average (1.47 and 1.69).

In addition, Romania recorded the highest variations in its coefficient values, i.e. from a minimum 0.51 (in January) to a maximum 2.36 (in August).

- As regards Bulgaria, the increase in the seasonality coefficients is recorded over a shorter period of only 4 months (between June and September), which shows that Bulgarian residents concentrate their holidays during this warm weather period and choose as a tourist destination especially the Bulgarian seaside. The variation in the coefficients recorded in the other months is small, which may indicate that in off-season, the number of the residents who spend their holiday in the country changes slightly and there are practiced tourism forms specific to the cold season.

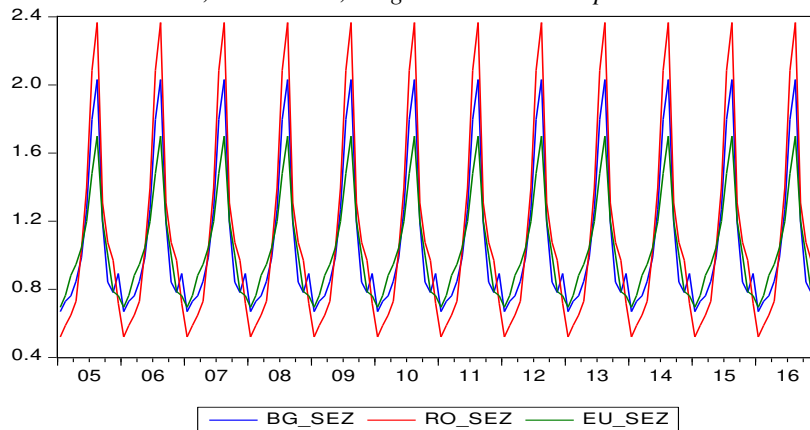
- It is also noteworthy that the seasonality coefficient values for "the number of overnight stays by residents" in Bulgaria are closer to the EU average, compared to the values recorded in Romania, which shows that seasonality (in Bulgaria and the EU average) is lower than in Romania;

- The average values of the seasonality coefficients recorded in the EU show that the concentration of the residents' holidays is recorded in each country over a six-month period, i.e. from May to September. At the same time, the EU recorded the smallest differences in the average values of the seasonality coefficients between season (May-September) and off-season (October-April) periods;

- The average value of the seasonality coefficients recorded in the EU in April (0.94) and the seasonality coefficient recorded in Romania in November (0.97) is close to 1, which shows that the seasonality (in these months) is very low. The explanation for Romania would be that in November the weather conditions favor the appearance of the first snow, the resident tourists choosing the mountain resorts from Romania, for practicing winter sports. In addition, some student categories (i.e. the pupils from the primary school) have a holiday in the early days of November.

The graphic representation supports the statement that Romania recorded the highest seasonality in terms of the number of overnight stays by residents", between 2005-2016, compared to Bulgaria and the EU average.

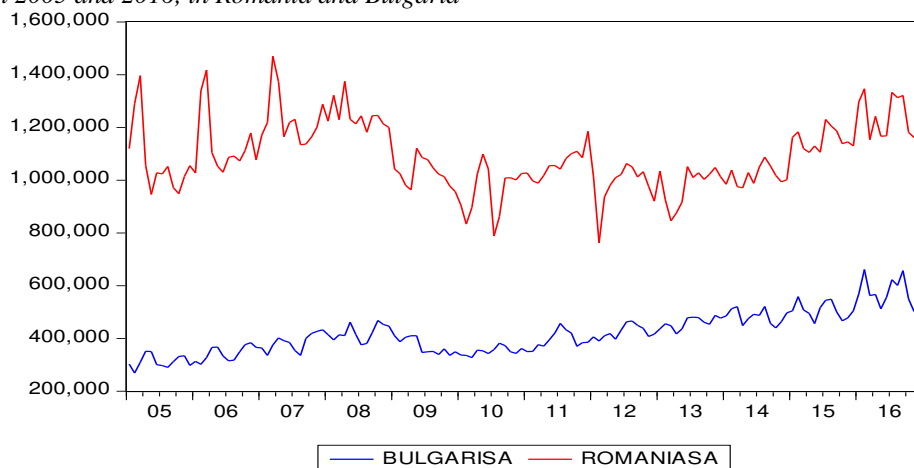
Figure no. 3 Seasonality coefficients for the indicator "the number of overnight stays by residents", per month, between 2005 and 2016, in Romania, Bulgaria and the European Union



Source: Author's own results obtained by processing Eurostat data, by EViews

In order to obtain the deseasonalized data series, we processed the initial database (the monthly values of "the number of overnight stays by residents", per month, from January 2005 to December 2016, recorded in Romania, Bulgaria and the EU), using the moving average method and the multiplicative variant.

Figure no. 4 The seasonally adjusted series for "the number of overnight stays by residents", per month, between 2005 and 2016, in Romania and Bulgaria



Source: Author's own results obtained by processing Eurostat data by EViews

The representation in Figure 4 shows that also when analyzing the deseasonalized data series, in Romania and Bulgaria, the seasonal nature of the tourist activity is more pronounced compared to the EU average. Figure 4 shows that the residents' tourist activity analyzed with the deseasonalized data series is higher in Romania compared to Bulgaria.

#### 4. Conclusions

The tourist activities performed by resident tourists show a seasonal evolution in Romania, Bulgaria and at the level of all the EU countries. In Romania, the flows of resident tourists show a strong concentration between June and September. There is also a pre-season period in May and a post-season period in October and November, when the value of the seasonality coefficients is very close to 1, which shows the reduction in seasonality. Residents choose to spend their holidays in Romania, especially during the warm-weather season (May-October), focusing especially in July and August. During this period, the seaside is the main tourist destination. The increase in the flow of resident tourists in November can be explained by favorable weather conditions for practicing winter sports; in addition, in December pupils and students are on holiday. The fewest holidays are spent by residents in the first three months of the year, most likely due to the unfavorable weather conditions experienced by Romania during this period, i.e. low temperatures, snowfall, blizzards, etc. Romania surpasses Bulgaria in terms of the values recorded each year in "the number of overnight stays by residents", over the analyzed period. This shows that, compared to Bulgaria, in Romania, the residents' tourist activity (expressed by this indicator) is more intense. Fewer Bulgarian residents choose to spend their holiday in their own country compared to Romanian residents.

By analyzing the average of the seasonality coefficients recorded per months, it is revealed that the flows of resident tourists from the EU member countries have a lower seasonality compared to those from Romania and Bulgaria. In other words, on average, the fluctuations in the number of trips made by residents in their EU countries are lower during the year, compared with the evolution recorded in Romania and Bulgaria. This feature is possibly triggered by the fact that, in EU economically developed countries, the tourists with higher incomes and more free time manage to travel almost constantly in their own country throughout the year. In this context, we consider that different behaviors are manifested by the resident tourists from Romania, Bulgaria and, as an average, at the EU level.

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