COMPARISON OF TOURISM PERFORMANCE IN CHOSEN EUROPEAN COUNTRIES WITH THE ACCENT TO SLOVAK REPUBLIC IN THE PERIOD BEFORE AND AFTER ACCESSION TO EUROPEAN UNION MEMBERSHIP AT THE BEGINNING OF 21ST CENTURY

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Abstract
Article reviews the development of tourism in the three selected countries of the European Union in the early 21st century. It focuses to the period before and after accession of the Slovak Republic to the European Union. The study points to the area that is dedicated to tourism within the European community. The findings present the evaluation of selected indicators: number/development of accommodation facilities of transitional housing) of the national tourism in the stated period on the example of the Slovak Republic, the Czech Republic and Germany. To evaluate the development of tourism sphere on chosen indicators there were used and presented mathematical - statistical methods as: the arithmetic average, standard deviation, coefficient of variation, median, average growth rate, the average rate of increase, the geometric average, and correlation and regression analysis. Since the compared countries have significantly different population rate, infrastructure and tourism operators’ coverage, comparison of absolute indicators of these countries in the field of tourism was limited to basic findings of the results of elementary statistical characteristics - capacity of collective tourist accommodation establishments and their growth rate. The survey results pointed to significant differences in performance in tourism of chosen countries.

Key words: compared; European Union; policy; tourism; visitors;

JEL Classification: Z32

I. INTRODUCTION

At the beginning it should be noted that tourism is not uniformly developed in the world, even in its states. His distinctive regional aspect grows mainly in the places with appropriate primary and secondary offer. The exogenous determinants influencing the development of international tourism on the boundary of the 21st century included mainly demographics, economic and social situation, technical and economic factors. As for endogenous factors may be mentioned mainly marketing strategy, which is usually accompanied by the creation of new products, market segmentation, customer focus and destinations development strategy that is affected by globalization. Tourism development in addition to the above mentioned factors is stimulated by the liberalization policy of the movement of goods and services, capital and persons, harmonization of the rules of competition, eliminating barriers, even consumer’s protection (Gúčik and Šípová, 2004).

Today, the business volume of tourism equals or even surpasses that of oil exports, food products or automobiles. Tourism has become one of the major players in international commerce, and represents at the same time one of the main income sources for many developing countries. This growth goes hand in hand with an increasing diversification and competition among destinations. Tento globálny rozšírenie cestovného ruchu v priemyselne vyspelených štátoch a produkoval ekonomické a pracovné prínos v mnohých súvisiacich odvetviach - zo stavby pre poľnohospodárstvo alebo telekomunikácie. Current developments and forecasts
International tourist arrivals grew by 4.3% in 2014 to 1.133 billion.
In 2014, international tourism generated US$1.5 trillion in export earnings.
UNWTO forecasts a growth in international tourist arrivals of between 3% and 4% in 2015.

This paper aims to map the position of three selected EU countries in the field of tourism based on the selected indicator and consequently more detailed specification for the Slovak Republic.

II. TOURISM POSITIONING IN THE EUROPEAN UNION

Until 1989 tourism was a minor concern of the European Union. Since 1989 it has been considered to be an important factor in employment, regional development and the EU market inhibitor (Gúčik and Šípková, 2004, p. 24). At present, tourism is not only profitable business but it also acts as a valuable means of promoting the image of European states in the world. It should reflect values and promote attractions of the European model resulting from cultural exchanges, linguistic diversity, creativity and centuries-long traditions (Reference document of the European Commission, 2010).

According to a Polish expert, Alejziak (2000, p. 250), tourism of the beginning of the 21 century could be characterised as a sector with the best labour market conditions’. Based on his account it is necessary to develop internal tourism of the European Union so as to ensure revenue growth generated by tourism as well as elimination of regional disparities in the EU.

"Attracting foreign investors to invest their capital in our market is no easy matter and requires the fulfilment of positive reviews for the six basic criteria, i.e. economic strength, business ethics, the degree of integration into the world economy, respect for rights, investment climate, and political stability” (Kotulič and Adamišin at al., 2014, p. 43). ‘The EU activities are done in the form of improving and extending widening economic, political, social and other relations. The European Union is directly or indirectly involved in the process of international economic and political integration. It participates in formation of an extensive network of multilateral, bilateral and regional trade relations with partners from all over the world. Many of those signed agreements go beyond trade relations.’ (Fogaš, 2013, p. 5). Europe is the world's no. 1 tourist destination, with the highest density and diversity of tourist attractions. As a result, the tourist industry has become a key sector of the European economy, generating over 10% of EU GDP (directly or indirectly) and employing 9.7m citizens in 1.8m businesses. Tourism contributes to:

- employment and regional development
- sustainable development
- an enhanced natural and cultural heritage
- shaping of a European identity.

Tourism is also an important means of promoting Europe's image in the world, projecting our values and promoting the European model – which is the result of centuries of cultural exchanges, linguistic diversity and creativity. EU policy aims to promote tourism so as to maintain Europe's standing as a leading destination, and maximize the industry's contribution to growth and employment (European Commission, 2015).
Palatková (2011) points out that tourism agenda, its understanding, representation and significance have changed depending on three principal factors:

1. The impact of key integration treaties on the integration process itself. Tourism was affected by development in other sectors as well as by significant milestones in the form of integration treaties, mainly Treaties of Rome (1957), Merger Treaty (1967), Maastricht Treaty (1993), and Treaty of Amsterdam (1999), Treaty of Nice (2003) and particularly by Treaty of Lisbon (2009).

2. Policy development with the impact on tourism. That is mainly transport policy, consumers protection policy, regional policy and development of the integration itself, and the European monetary policy.

3. Enlargement of the European Union. The countries for which tourism is important in terms of economy (the first enlargement in 1973, followed by accession of new countries in 1981, 1986 and 1995). In 2004 the European Union saw the greatest enlargement, when 10 new countries including Slovakia joined the EU. In 2007 Bulgaria and Romania joined the Union.

European Parliament Resolution (2003) generally acknowledges Europe as the most important world destination. However, due to the increasing preferences of the Europeans for spending their holidays outside the European Union, its leadership is weakening. Tourism is experiencing a steady growth in productivity and employment in Europe and worldwide.

It represents the economic and cultural benefits for many towns, regions and local communities of the Union (Tej, 2014; Gburová and Bačík, 2013). The tourist industry creates various job opportunities. Employment policy must be directed towards the improvement of the job quality and the decrease of its seasonality. The Union must take into account the needs of the tourism sector in its decision-making processes. The measures it takes affect it directly or indirectly. Tourism is one of the main sources of revenue for some underdeveloped regions of the Union and it greatly contributes to drawing their economies nearer to the average European level (European Parliament Resolution, 2003).

Mass tourism is becoming a sensitive issue for seaside and mountain regions. It may cause concerns about the environment and cultural heritage monuments. Influx of tourists and urban development must be appropriately balanced. The Union should support activities that help develop regional particularities. Geographical, historical, cultural and ecological peculiarities are the source of the wealth and arouse tourists’ interest in the Community regions.

Changes in the demographic structure of the EU will considerably affect tourism. The increase of the number of people aged 65 and over and their involvement in tourism are expected. New rapidly growing competitive destinations offering innovative products and services are emerging. This adds to the competitive pressure the EU faces worldwide (A Renewed Tourism EU Policy, 2006).

III. METHODOLOGY

Residential tourism is becoming one of the EU priorities pursued by national economies. One of the major prerequisites of residential tourism development is the capacity of accommodation establishments, its structure, as well as the quality and spatial location.

In the publication Panorama on Tourism in 2007 (UNWTO, p. 52) EU countries are classified according to their position in the tourism market. Within the study, there were selected three EU countries, one from each group.

Germany represents the country as "particular source state", Slovak Republic represents a group called "source / target country" and the Czech Republic represents a group of states from the "main target state".

Countries were analysed on the basis of relevant statistical data obtained from Eurostat and the Statistical Office of Slovak Republic (2011). The study provides partial part of the overall analysis, focusing on selected indicators of tourism in the period 2000 - 2010 and analysis of tourism accommodation capacities in collective accommodation establishments.

Mentioned period was chosen because of the start of the new millennium. At the same time it represents period of 10 years that can be divided into before and after the accession of Slovak Republic to European Union (in 2004).

The main objective of this part of the article is to map the position of three selected EU countries in tourism - focusing on the evaluation of statistical data for collective accommodation facilities in tourism sphere. The study presents findings of partial objectives of the main objective, namely:

- Total number of accommodation facilities in Slovak Republic, Czech Republic, Germany.
- Number of beds in collective in accommodation facilities in Slovak Republic, Czech Republic, Germany.
- Number of beds in accommodation facilities per 1 000 inhabitants in the country.
To achieve the objectives following statistical methods and techniques were used: arithmetic mean (average), standard deviation, coefficient of variation, median, average growth rate, average rate of increase, the geometric mean (average), correlation and regression analysis.

The first part of the study is followed by more focused accent on the Slovak Republic condition, where the number of visitors (residents and non-residents) in collective accommodation establishments (in thousands) as tourism performance indicator was studied.

Mentioned indicator was studied by correlation and regression analysis for the period before and after the accession to the EU 2000-2010 depending on:

- the number of collective accommodation establishments (NCAE);
- the number of beds in collective accommodation establishments (NBCAE);
- the total number of nights spent in collective establishments in thousands (TN_NCAE);
- the average number of nights spent in accommodation establishments (AV_NCAE);
- the number of people employed in tourism (EMPTU).

IV. ANALYSIS OF TOURISM ACCOMMODATION CAPACITIES IN COLLECTIVE ACCOMMODATION ESTABLISHMENTS

The study took account of differences between countries, such as the fact that Germany has a greater number of accommodations than the other two countries. Analysis was conducted in absolute terms. Consequently, the growth rate was set of collective accommodation establishments, representing input data for further analysis.

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</tr>
</thead>
<tbody>
<tr>
<td>Slovak Republic</td>
<td>1.2842</td>
<td>1.015</td>
<td>1.0256</td>
<td>0.9894</td>
<td>0.9777</td>
<td>1.0134</td>
<td>1.3093</td>
<td>1.0344</td>
<td>0.9696</td>
<td>0.9657</td>
<td></td>
</tr>
<tr>
<td>Czech Republic</td>
<td>1.0313</td>
<td>1.0216</td>
<td>1.0072</td>
<td>0.9639</td>
<td>0.9954</td>
<td>1.0014</td>
<td>1.0301</td>
<td>0.9822</td>
<td>0.9808</td>
<td>0.9574</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>1.0054</td>
<td>0.9956</td>
<td>0.9907</td>
<td>1.0029</td>
<td>1.001</td>
<td>0.9903</td>
<td>0.981</td>
<td>1.0037</td>
<td>0.9855</td>
<td>1.0066</td>
<td></td>
</tr>
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</table>

Source: own processing based on EUROSTAT data

In total at the example of Germany and the Czech Republic we observed a stable level in the number of collective accommodation facilities. The most significant increase can be seen in the case of Germany in 2010, when its number increased in 0.66%. In the contrary in the Slovak Republic, we could see two extremely high levels of growth - in 2001, the number of collective accommodation facilities increased in 28.42% compared to 2000 and in 2007 up to 30.93% compared with the previous year. The decline was evident only in 2004-2005 and in 2009-2010 when global crisis appeared.

In the pre-accession period Slovakia into the EU, the average number of collective accommodation establishments was 1948. In average, their number differed from the mean value of 196.36 devices. On average, growth of these devices in the pre-accession period represented/reached 1.0724 times of the previous year. Every year at this time their number increased by 7.24% compared to the previous year. In the period after accession to the EU average growth was lower. Each year there was an increase of 3.88% compared to the previous year. Considering the whole period 2000 - 2010 and the average rate was 5.21% accrete.

In the same way it was proceeded during the analysis of two other evaluative indicators of which results can be seen in this study.

Slovak Republic had in the pre-accession period 156,000 beds in collective accommodation establishments in average. It was about 8,000 beds more than the average number of beds in the after-accession period. The total average number of beds throughout the reporting period was nearly 152,000. The maximum number of beds in collective accommodation establishments was nearly 166,000 in Slovakia in 2008. Following years there has been a very significant decline, and in 2010 even the minimum (127,525). In the Czech Republic there were not visible changes in the number of beds - the lowest values were recorded in 2004 and 2005 to 433,000. The highest were in 2008 when reached 467,000. In Germany, the lowest number concerning beds in collective accommodation establishments was in 2002 (3 045 thousand), while the beds were the most in 2006 (3 329 000).
Table 2. Growth Indicators of collective accommodation establishments

<table>
<thead>
<tr>
<th>Country</th>
<th>Period</th>
<th>Arithmetic average</th>
<th>Standard deviation</th>
<th>Median</th>
<th>The average coefficient of growth</th>
<th>The average growth rate</th>
<th>The average rate of increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slovak Republic</td>
<td>2000-2004</td>
<td>1.948</td>
<td>196.36</td>
<td>2.032</td>
<td>1.0724</td>
<td>107.24%</td>
<td>7.24%</td>
</tr>
<tr>
<td></td>
<td>2005-2010</td>
<td>2.463</td>
<td>310.47</td>
<td>2.633</td>
<td>1.0388</td>
<td>103.88%</td>
<td>3.88%</td>
</tr>
<tr>
<td></td>
<td>2000-2010</td>
<td>2.229</td>
<td>368.49</td>
<td>2.062</td>
<td>1.0521</td>
<td>105.21%</td>
<td>5.21%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>2000-2004</td>
<td>7.721</td>
<td>163.9</td>
<td>7.703</td>
<td>1.0057</td>
<td>100.57%</td>
<td>0.57%</td>
</tr>
<tr>
<td></td>
<td>2005-2010</td>
<td>7.594</td>
<td>185.37</td>
<td>7.611</td>
<td>0.991</td>
<td>99.10%</td>
<td>-0.90%</td>
</tr>
<tr>
<td></td>
<td>2000-2010</td>
<td>7.652</td>
<td>187.05</td>
<td>7.640</td>
<td>0.9968</td>
<td>99.58%</td>
<td>-0.32%</td>
</tr>
<tr>
<td>Germany</td>
<td>2000-2010</td>
<td>54.732</td>
<td>908.16</td>
<td>55.119</td>
<td>0.9962</td>
<td>99.62%</td>
<td>-0.38%</td>
</tr>
</tbody>
</table>

Source: own processing based on EUROSTAT and Statistical Office of SR data

The numbers of beds data are incomparable in absolute terms. They were recalculated in terms of population of the country to the 31.12 in thousands each year.

Within the reporting period accounted for the highest number of beds in collective tourist accommodation establishments per 1,000 residents of a particular country in the Czech Republic, with the lowest number of beds was recorded in 2005 to 42.39 beds per 1,000 inhabitants of the Czech Republic. Conversely, the lowest number of beds per 1,000 inhabitants of the country under the two countries was recorded in Slovakia, where in 2010 it was only 23.51 beds per 1,000 inhabitants. We can see that there are visible differences between Germany and the Czech Republic, but at the end of the reporting period, these differences in the number of beds per 1,000 inhabitants decrease.

V. ANALYSIS OF THE NUMBER OF VISITORS’ COLLECTIVE ACCOMMODATION FACILITIES WITH A FOCUSED ON SLOVAK REPUBLIC

Correlation analysis was carried out in order to correlate differences among variables. The number of visitors in mentioned establishments was pointed as dependent variable. The other variables were independent.

The framework of the contribution comprised historical view to nine inspiring research topics related with tourism activities in Czech (Slovak) academic environment (up to Vystoupil and Kunc, 2009).

Table 3. Correlation analysis

<table>
<thead>
<tr>
<th>VISIT</th>
<th>NCAE</th>
<th>AV_NCAE</th>
<th>TN_NCAE</th>
<th>NBCAE</th>
<th>EMPTU</th>
</tr>
</thead>
<tbody>
<tr>
<td>VISIT</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCAE</td>
<td>0.7490</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AV_NCAE</td>
<td>-0.7056</td>
<td>-0.7900</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TN_NCAE</td>
<td>0.5499</td>
<td>0.1077</td>
<td>0.1983</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>NBCAE</td>
<td>0.3462</td>
<td>-0.1434</td>
<td>0.1884</td>
<td>0.6997</td>
<td>1.0000</td>
</tr>
<tr>
<td>EMPTU</td>
<td>0.7880</td>
<td>0.8939</td>
<td>-0.8931</td>
<td>0.0146</td>
<td>-0.2011</td>
</tr>
</tbody>
</table>

Source: own processing based on EUROSTAT and Statistical Office of SR data

Table 3 shows the values of the individual coefficients of correlation between the dependent and independent variables. The coefficients of correlation between variables VISIT and NCAE (rxy = 0.7490), VISIT and AV_NCAE (rxy = -0.7056) a VISIT and EMPTU (rxy = 7880) point to a strong direct linear relationship between pairs of variables. In case that the value of variables VISIT and NBCAE grows, the value of variable AV_NCAE will as well. Due to the lower values of the coefficient of correlation of other couples the further analysis could be considered with them.

Regression analysis estimated the dependence of the number of visitors in collective establishments on selected three independent variables - the total number of accommodation facilities (NCAE), the average number
of nights spent in accommodation establishments (AV_NCAE) and number of persons employed in tourism (EMPTU). Dependence was estimated using the regression line: \( \text{VISIT} = \text{locational constant} + \text{NCAE} + \text{AV_NCAE} + \text{EMPTU} \).

Pointed original model was modified according to the results obtained and estimated anew. In the present form of the proposed model as a whole and not even individual coefficients of the regression line were not statistically significant and that was the reason why this model does not make sense. The significance level to test the parameters and the model was set at 0.05, \( p \)-value. For estimated coefficients of the regression line resulting value \( p \)-value was significantly higher. Obviously, the estimated parameters are not significant. Since the \( p \)-value (= 0.07) to test the significance of fit and as a whole is greater than the significance level of 0.05, the model as a whole is not statistically significant. It is not appropriate to be used for further analysis.

The model was re-designed, having in mind the fact that the omitted variable whose statistical contribution measured values exceeding the \( p \)-value was the lowest. From the model there was omitted variable AV_NCAE (\( p \)-value = 0.9726).

The newly designed model is significant as a whole (Significance F = 0.018568). \( p \)-value for the estimated coefficients of the regression line was still significantly higher than the chosen significance level. It was again omitted independent variable NCAE (\( p \)-value = 0.65622) and the model was designed anew.

Re-estimated model is highly significant as a whole (F Significance = 0.003966). The same was at the example regression coefficient value of the variable EMPTU (\( p \)-value = 0.003966). The coefficient of determination is relatively low (\( R^2 \) Square = 0.6210) and statistically insignificant is also the value of Intercept (\( p \)-value = 0.331967). In the latest version of the model there was also excluded locational constant (intercept) and the model was estimated without it.

![Regression Statistics](image)

**Figure 2- Final model of the regression line**

Source: own processing based on EUROSTAT and Statistical Office of SR data

The last proposed model can explain up to 99.66\% of the variability of the variable VISIT. As a whole, is highly significant (Significance F = 1.23E-12). The estimated regression coefficient for the variable EMPTU (\( p \)-value = 1.096E-13) It is also highly statistically significant. Given these three statistical indicators, we can assume that the model is particularly suitable for modelling variable explaining the number of visitors in collective accommodation establishments.

Regression dependence expressed by the function expressed by \( \text{VISIT} = 1.52 \times \text{EMPTU} \) it is possible to interpret as: in case that variable EMPTU increases by one unit, it increases also the value of variable VISIT in 1.52. This means that if the number of people employed in tourism increase by 1 person it also increases the number of visitors in collective accommodation establishments by 1.52 thousand.

### VI. FINDINGS AND RECOMMENDATIONS

The growth coefficient of accommodation capacity was relatively constant in Germany and the Czech Republic with only slight fluctuations during the period of observation. The situation in the Slovak Republic was affected by a sharp rise in 2001 and 2007 (average rate of increase 5.21\%). Average results concerning the rate
of increase gained from the data in the pre-accession period in the Czech Republic (0.57%) and the Slovak Republic (7.24%) decreased after the accession to the EU to -0.90% in the Czech Republic and 3.88% in Slovakia.

Calculated by the number of people in each selected state, the number of bed places in accommodation establishments has become an indicator that can be compared internationally. The largest average number of bed places in establishments from 2000 to 2010 was in the Czech Republic (43.33 bed places/1000 inhabitants during pre-accession period and 43.56 bed places during after-accession period), followed by Germany with 38.97 bed places/1000 inhabitants and finally by Slovakia with the average number of a 28.15 bed places/1000 inhabitants (29.02 bed places/1000 inhabitants before accession and 27.43 bed places/1000 after accession).

Using correlation and regression analysis a model was designed based on the number of visitors (in thousands) to accommodation establishments in Slovakia. The data were gathered from 2000 to 2010. After several modifications of the model and an analysis, the statistical significance of the dependence between the number of visitors to accommodation establishments in Slovakia and the number of employees in the tourism sector was confirmed. The result showed that the increase in the number of tourism employees by one person will positively affect the number of visitors (it will increase by 1, 520 people).

Based on the findings in the tourism indicator development, we may state that the Slovak Republic is becoming a gradually developing destination in the European tourism market after joining the European Union and adapting to European structures. Even despite several unfavourable influences, factors. As Kotulič and Pavelková (2014, p. 284) see it ‘we presume that the transformation process of the Slovak economy from the centrally planned economy into the market economy was not completed in the analysed period and left its marks in the form of ineffective allocation of production factors.’

The Czech Republic benefits from the EU membership and is becoming a leading destination in international economic relations. Germany is the elite European Union country. It is one of the generators of international tourism and it puts effort into maintaining its position in the European market.

Processing statistical data and reviewing professional literature related to examine countries with an emphasis on tourism capacity, it was possible to identify a problematic issue. That is capacities that are not officially registered – private accommodation. Such activity is hardly detectable. A more precise legislative solution as well as consistent registration and provision of information by self-governing authorities would be appropriate.

Worldwide there is an evident trend towards decreasing number of nights, which signals shortening of the length of holiday stays. Accommodation establishments will have to provide short-term stays. This might be in economic terms reflected in decreasing foreign revenue. It will be necessary to monitor it more. 'The outbreak of the economic crisis raised a legitimate question if the situation in some European economies would have developed differently if they had not been and/or been members of the European monetary union today. The answer to this question is not generally valid for the remaining EU states that have not adopted single euro currency yet.' (Kotulič, 2010, pp. 146-147).

Less developed EU countries should establish cooperation with neighbouring countries within the central European area and take the initiative in attracting potential clientele mainly from China, Japan, Brazil, India, the USA, Canada and Australia.

Tourism statistics is complex, inconsistent and not very transparent. The process of data gathering is elaborate. One of the solutions would be to design a system of statistical records that would provide solid basis for assessment. It is also inevitable to ensure that the quality of statistical data is internationally comparable.

VII. CONCLUSION

Tourism sphere that covers accommodation services in European Union countries is currently one of the most watched (significant) priorities of national economies. The border opening, free movement of goods and labour mean increase of pressure at the European market, which itself represents highly competitive environment. Limiting factors of tourism development are only some limits of foreign exchange and visa requirements concerning certain countries. For accurate understanding and evaluation of the contribution of tourism it is essential to measure and monitor its achievements and performance indicators.

VIII. ACKNOWLEDGMENT

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IX. REFERENCES