1. INTRODUCTION

Price is the most fundamental determinant of demand. In terms of tourist demand, price plays an important role in attracting travellers to a specific destination. Tourists decide on the choice of a specific destination not only based on the comparative analysis of product and service prices in both a receiving and origin country, but also based on the relative prices among different competing destinations. To determine competing destinations based on tourism price levels, the paper examines the relationship between price competitiveness, tourist arrivals, and tourism receipts in European countries.
hypothesis on the heterogeneity of European countries in terms of tourism price competitiveness.

Tourism has recently become the fastest growing industry in the world. Preferences of tourists are changing along with an increase in tourism receipts and tourist arrivals. The paper will examine the relationship between the price factor and tourism demand. The starting hypothesis of the paper assumes that more price-competitive countries have a higher number of tourist arrivals and more tourism receipts. The paper examines whether the lower product and service price levels of destinations are a decisive factor in choosing tourist destinations.

Tourism price competitiveness is presented based on the data provided by the World Economic Forum Report – Travel and Tourism Competitiveness Index. One of the fourteen pillars of this Index is Price Competitiveness. A comparative analysis of the Price Competitiveness pillar for thirty-seven European countries was carried out.

2. LITERATURE REVIEW

Price competitiveness is an important component of overall tourism competitiveness of any country or destination. There is a general consensus that price is one of the most essential criteria for making decisions on whether journeys will be made or where to travel (Göral, 2016).

Many scholars have dealt with the effect of prices on competitiveness in the tourism industry – both with the general effect of prices on competitiveness and demand, and with their effects in relation to specific destinations and regions. Several factors impinge in different ways on tourism price competitiveness: exchange rates, inflation and overall price levels, labour prices, productivity performance of tourism industries, export booms and Dutch disease, tax levels and structures, infrastructure charges, fuel prices and taxation, and environmental charges (Dwyer & Forsyth, 2009).

Plessis and Saayman (2018) analyse factors with the biggest influence on the competitiveness of South Africa as a destination. They point to the most influential factors of the improvement of the competitiveness of South African tourism, which comprise fuel prices, inflation, exchange rate, electricity cost and labour costs. One of the factors affecting price competitiveness, i.e. influencing tourists’ decisions on visiting a certain destination “is the overall cost of living at the destination, which includes accommodation, food and beverage, shopping, energy, tours and entertainment“(Plessis & Saayman, 2018).

In economic theory, the general law of demand holds that there is an inverse relationship between the scope of demand and product and service prices. If prices are higher, demand is lower. As far as tourist industry is concerned, this would imply an increase in tourist demand for destinations with lower prices, i.e. for price-competitive destinations. However, the peculiarities of this industry and the relationship between price and demand are reflected in the fact that, apart from price-related issues, tourists often have other requests which significantly affect their choice of a certain destination (Dwyer et al., 2001b). “These factors are not directly related to tourism, however, it is common that economically strong countries have a far better developed infrastructure, tourism base and possess a more attractive tourism image than economically weak
countries” (Navickas & Malakauskaitė, 2009). When tourists opt for a journey, they make their decisions based on the “quality or uniqueness of the product or service and not because it is the cheapest” (Plessis & Saayman, 2018).

Price elasticity of demand affects the number of arrivals and tourism receipts. As far as the ways in which price changes affect demand for tourist products and services are concerned, “destinations need to monitor their price competitiveness relative to alternate locations” (Dwyer et al., 2000). Price changes substantially influence changes in tourist demands and this is reflected in high elasticity of tourist demand (Crouch, 1992). “Travellers’ demand tends to be more sensitive to the price changes than to the tourists’ income changes” (Utami et al., 2016).

In scientific literature, there is a great amount of research dealing with modelling competitiveness of tourist destinations (Crouch, 2007). Some models analyse the competitiveness of a specific destination (Omerzel-Gomezelj, & Mihalić, 2008; Dwyer et al., 2012; Croes, 2013; Marakova et al., 2016; Krstić et al., 2016) some compare the competitiveness of various destinations (Bahar & Kozak, 2007; Alves & Nogueira, 2015); some explore factors of competitiveness (Thitthongkam & Walsh, 2011; Petrović et al., 2017; Petrović & Milićević, 2017); while others create models suitable for specific studies of the competitiveness of particular destinations (Dragićević et al., 2012; Rudančić-Lugaric & Gračan, 2013; Jovanović et al., 2014).

Tourism competitiveness models “evolved from the simple perception that in order to achieve the competitiveness of the destination, its proper marketing position is of utmost importance” (Manojlović et al., 2014), up to very complex competitiveness models that consider numerous destination-competitiveness factors, examine their interrelatedness or deal with the prediction of the competitive position of the destination in the future.

Price, as a factor of tourism competitiveness, is explicitly highlighted within the framework of tourism competitiveness model developed by the Organization for Economic Cooperation and Development (OECD). The OECD methodology of tourism competitiveness implies the identification of a set of significant indicators, whose measurement and analysis determine tourism competitiveness, which makes a good basis for the decision-making process and management of the tourism development policy. The key indicators of tourism competitiveness are classified into four groups (Dupeyras & MacCallum, 2013): 1) Indicators measuring tourism performance and impacts, 2) Indicators monitoring the destination’s ability to provide a quality and competitive tourism service, 3) Indicators monitoring the attractiveness of the destination, and 4) Indicators determining the framework of the tourism development policy and economic opportunities. The business environment in which tourism activities take place is of great importance to the improvement of tourism competitiveness. In addition to labour productivity in the tourism sector and the country’s requirements for entry visas, the Purchasing Power Parity (PPP) and tourism prices represent indicators for monitoring the destination’s ability to provide a quality and competitive tourism service. The Purchasing Power Parity (PPP) indicator and tourism prices allow for the analysis of the price levels in different countries, i.e. the
comparison of the price levels of one country with those of others. The price level in a certain destination significantly affects the visitors’ choice. Regarding the framework of the OECD methodology, it is possible to expand the basic indicator scale by introducing additional indicators, such as the Tourism Consumer Prices Index, which facilitates the decision-making process and management of tourism development policy.

The competitiveness model, known as Travel & Tourism Competitiveness Monitor (CM), was developed in 2001 by the World Travel & Tourism Council (WTTC) to measure tourism competitiveness in over 200 countries. The purpose of this model was to provide the information that could help to identify the competitiveness level of the environment in terms of tourism development and travel in some destinations. The Competitiveness Monitor was created with the help of eight sub-indices which are the key areas of competitiveness (WEF, 2017): 1) Price competitiveness; 2) The impact of tourism on the development of human society; 3) Infrastructure; 4) Human resources; 5) Environment; 6) International openness; 7) Technology; 8) Social development. Observed within the framework of this methodology of tourism competitiveness, price competitiveness is determined based on the Tourism Price Competitiveness Index (TPCI), which is calculated by means of the Hotel Price Index and Purchasing Power Parity Index (Hotel News Resources, 2004).

Created by the World Economic Forum, the Travel & Tourism Competitiveness Index (TTCI) has been a generally accepted indicator of the competitiveness of the tourism industry at the national level (WEF, 2017) ever since 2007. The main goal of TTCI is to quantify the impact of factors and policies that affect the attractiveness and development of the tourism sector in different countries (WEF, 2017). According to the Reports on the Travel and Tourism Competitiveness in 2015 and 2017 (WEF, 2015, 2017), the main sub-indices of TTCI are (WEF, 2017): 1) Enabling Environment; 2) T&T Policy and Enabling Conditions; 3) Infrastructure; and 4) Natural and Cultural Resources. Besides the two pillars – Prioritization of Travel and Tourism, and International Openness, the T&T Policy and Enabling Conditions Index also encompasses the third pillar – Price Competitiveness. This pillar is important because "lower travel costs have an impact on increasing the attractiveness of a country for a large number of passengers, as well as the interest of investors in tourism and travel sector" (WEF, 2015). The ticket taxes and airport charges, purchasing power parity, hotel price index, and fuel price levels play an important role in setting a higher level of price competitiveness.

3. RESEARCH METHODOLOGY AND HYPOTHESIS

The research subject of this paper is the relationship between the variables Price Competitiveness, as a pillar of the TTCI, on the one hand, and the Tourist Arrivals and Tourism Receipts, on the other hand. A comparative analysis of the Price Competitiveness pillar for thirty-seven European countries was carried out. The main components of the Price Competitiveness pillar encompass: Ticket Taxes, Airport Charges, Purchasing Power Parity, Fuel Prices, and Hotel Price Index.

The information basis of this research is related to Travel and Tourism

The paper highlights the relationship between price competitiveness and the number of tourist arrivals and total tourism receipts. A cluster analysis was carried out to classify all European countries into homogeneous groups, according to the value of the pillar Price Competitiveness.

This paper tests the following hypotheses:

**H1**: European countries are heterogeneous in terms of tourism price competitiveness.

**H2**: More price-competitive countries have a higher number of tourist arrivals and more tourism receipts.

### 4. Research Results and Discussion

The research of the paper focuses on the cluster analysis which “tends to classify a set of variables into two or more groups, based on their similarities related to a series of observed characteristics. The principle of classification relies on the fact that one group encompasses similar variables, while the difference among variables of different groups in terms of observed features is maximized” (Kovačić, 1994). According to Forsyth and Dwyer (2009), countries which belong to the same cluster are mutually competing destinations, „which generates the substitution price effect“ (Forsyth & Dwyer, 2009). In countries within the same cluster, there is a high price elasticity of tourist demand as these countries represent competitors. As far as our research is concerned, this implies that the countries belonging to the first cluster and the ones within the second cluster are not mutually competing destinations. The countries within the same cluster represent a homogeneous group of countries in terms of price competitiveness, and tourists decide on those destinations by comparing their prices (accommodation, tour services, food and beverage, shopping, entertainment) (Dwyer et al., 2001a). The cluster analysis of tourism competitiveness has also been the study subject of a group of authors Popescu et al. (2018). In their paper, they identify homogeneous groups within CEE-16 countries in terms of tourism competitiveness.

In order to classify European countries into homogeneous groups based on the Price Competitiveness pillar from 2017, we chose a hierarchical (agglomerative) grouping according to Ward’s method (a variance method). As a measure of the similarity/dissimilarity between countries, the Euclidean distance was used (the Euclidean distance represents the square root of the sum of squared differences between the values of Price Competitiveness). According to the values of the Price Competitiveness pillar, the classification was done into two clusters.

The Table 1 shows the classification of the European countries into clusters. According to the values of the Price Competitiveness pillar, it can be noted that the second cluster contains one more country (19) than the first one and the mean of the Price Competitiveness pillar is 4.0411. The first cluster consists of eighteen countries which show a higher value of the Price Competitiveness pillar – 4.9772. The countries in the first cluster are more price-competitive and, therefore, cheaper for tourists. Generally observed, the values of
the Price Competitiveness pillar for European countries ranged from 2.35 to 5.50 in 2017. In Europe, Poland is the country with the most intense price competitiveness and it takes the twenty-third place in the world with the Price Competitiveness pillar of 5.50.

The decomposition of the sample into two clusters is not the result of an arbitrary assessment but is based on the author's professional analysis and it is consistent with well-known Balassa-Samuelson (B-S) effect. Some authors focused on a neglected part of B-S effect in international trade, namely, the specific role of tourism in equilibrating the purchasing power parities across areas. The Balassa-Samuelson effect, which was proposed by Bela Balassa and Paul Samuelson in 1964, explains why using exchange rates vs. purchasing power parity to compare prices and incomes across countries will give different results (Tubadji & Nijkamp, 2018).

The Balassa-Samuelson effect explains differences in prices and incomes across countries as results of differences in productivity. In addition, the B-S effect suggests that an increase in wages in the

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Albania, Bulgaria, Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Montenegro, Macedonia, Moldova, Portugal, Poland, Romania, Slovenia, Serbia, Slovakia, Turkey</td>
</tr>
<tr>
<td>2</td>
<td>Austria, Belgium, Bosnia and Herzegovina, Croatia, Cyprus, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Luxemburg, Malta, Netherlands, Norway, Spain, Sweden, United Kingdom</td>
</tr>
</tbody>
</table>

Table 1. Schedule of the European countries by clusters according to the price competitiveness

Source: Prepared by the authors according to IBM SPSS 26.0 and Travel and Tourism Competitiveness Report.
tradable goods sector of an emerging economy will also lead to higher wages in the service sector of the economy. In this regard, the optimal rate of inflation will be higher for developing countries as they grow and raise their productivity (Investopedia, 2021). The forces that drive this model are straightforward; higher productivity growth in the traded-goods sectors tends to increase local input costs and therefore prices of non-tradable goods. Since traded-goods prices tend to be equalized across countries, this raises the local price level, which is a real exchange rate appreciation (Devereux, 2014).

The World Bank defines the purchasing power parity (PPP) conversion factor as the number of units of a country’s currency required to buy the same amount of goods and services in the domestic market as a US dollar would buy in the United States. Official exchange rate refers to the exchange rate determined by national authorities or to the rate determined in the legally sanctioned exchange market. It is calculated as an annual average based on monthly averages (local currency units relative to the US dollar). The variable shown is the PPP conversion factor to market exchange rate ratio as reported by the World Bank’s World Development Indicator database (The World Bank, World Development Indicators).

Based on the Figure 1 and Figure 2, it can be concluded that the average score of the Ratio of purchasing power parity (PPP) conversion factor to official exchange rate in the Cluster 1 is 0.5055 while the average score of the same indicator for the cluster 2 is 0.8842. The obtained results justify the formation of two clusters in the empirical analysis and confirm the specific role and importance of the B-S effect.

Table 2 shows the results of the conducted descriptive statistics for the two clusters. For the further interpretation of the clusters, a statistical technique t-test was used to check whether there is a statistically significant difference between the means of the price competitiveness values of the two clusters. Considering the results of descriptive statistics (the maximum of the second cluster is lower than the minimum of the first cluster), there is a possibility of moving countries from one cluster to another under the influence of a significant effect of number of factors such as: full membership in European Union for countries like Serbia, inflation, energy crisis, etc. The statistically significant results of the Group Statistics were presented in the Table 3.

Table 4 - Independent Sample Test, shows Levene's Test for Equality of Variances. This tests whether the variance of the results in the two clusters is equal. Since that Sig.>0.05 (0.353) this means that the assumption of equality of variance was not violated. Given that value Sig.(2-tailed), in the part of the table that relates to t-test for Equality of Means, equal to or less than 0,05 (0.000), then there is a significant difference between the mean values of the dependent variable (price competitiveness) in each of the two clusters. Taking into consideration the fact that there is a dichotomy in the division of the European countries, it can be concluded that the first hypothesis was confirmed. (H1: European countries are heterogeneous in terms of tourism price competitiveness).

The aim of the further analysis of this paper is to examine which group of countries attracts a greater number of tourists and generates greater tourism receipts – the countries with a higher or with a lower price competitiveness level. The obtained results in the Table 5 show that the second cluster generates about 71% of the total
Table 2. Descriptive statistics

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>18</td>
<td>4.9772</td>
<td>0.28817</td>
<td>4.8339</td>
<td>5.1205</td>
<td>4.63</td>
</tr>
<tr>
<td>2</td>
<td>19</td>
<td>4.0411</td>
<td>0.50010</td>
<td>3.8000</td>
<td>4.2821</td>
<td>2.35</td>
</tr>
</tbody>
</table>

Total 37 4.4965 0.62393 0.10257 4.2885 4.7045 2.35 5.50

Source: Prepared by the authors in IBM SPSS 26.0
international tourist arrivals and about 78% of the total international tourism receipts. Tourism price levels in European countries affect the expenditure levels per tourist. Hence, in the countries with a lower price competitiveness index (lower ticket taxes and airport charges, purchasing power parity, fuel prices, hotel prices), an average expenditure per tourist stands at 605.41 US$, which accounts for 76% of the average expenditure per tourist in all European countries. The second cluster exhibited a 10% greater average expenditure per tourist in Europe (878.97 US$).

Regarding the presented results, the countries in the first cluster are more price-competitive but they attract 29% of the international tourist arrivals and generate 22% of the international tourism receipts. The second cluster, which was less price-competitive in 2017, had 71% international tourist arrivals in Europe and 78%
international tourism receipts. This indicates that the second hypothesis was rejected (H2: More price-competitive countries have a higher number of tourist arrivals and more tourism receipts).

The static character of this analysis does not reduce the importance and validity of the obtained conclusions, but it opens the possibility of further research in the direction of evaluating the fulfillment of the hypothesis in the intragroup sample of each cluster and expanding the time series in the observed sample of countries.

5. CONCLUSION

Tourism competitiveness, as a complex concept, is becoming more and more topical under contemporary development conditions. The comparison of competitiveness variables of enterprises, destinations or national economies makes comparative analyses possible and represents a starting point for creating policies, strategies, and operational plans for tourism development.

This paper focuses on the price competitiveness of European countries. To compare tourism price competitiveness of various countries, it is essential that the observed countries are mutual competitors. The paper applies the cluster analysis to determine the heterogeneity of European countries in terms of tourism price competitiveness. The analysis turns out two clusters, i.e. the observed countries are divided into two groups, thus constituting mutually competitive destinations. The conducted research indicates that countries belonging to the first cluster and the ones belonging to the second cluster are not mutually competing destinations. The division of countries into clusters confirmed the starting hypothesis that European countries are heterogeneous in terms of tourism price competitiveness. In this regard, the obtain results suggest that relatively economically developed countries were formed in cluster 2, and the poor in cluster 1. A higher level of development means a higher level of technology, labor productivity, income, and wages. Consequently, the price level is higher, ceteris paribus. Also, a higher price for tourist services and correspondingly high fees from the tourism sector per one person in developed countries are associated with the Balassa-Samuelson effect.

An assumption that more price-competitive countries have a higher number of tourist arrivals and more tourism receipts was not supported in the paper. The comparison of tourist arrivals and tourism receipts among clusters led to the conclusion that the countries with a lower price competitiveness levels had lower tourist arrival levels (29%) and tourism receipts (22%) in 2017 in comparison to the countries with higher price competitiveness levels (71% of tourist arrivals and 78% of tourism receipts).

The research results in this paper demonstrated that the average expenditure per tourist in the countries with a lower price-competitiveness index amounts to 605.41 US$, which accounts for 76% of the average expenditure per tourist in all European countries. The countries with a higher price competitiveness level had a 10% higher expenditure per tourist (878.97 USD) compared to the average expenditure in European countries (878.97 US$).

This analysis brings us to a conclusion that the countries which strive for tourism development cannot rely on the fact that
lower product and service prices, compared to competing destinations, will bring about an increase in the number of tourist arrivals and tourism receipts; these countries should focus on other factors which will affect the destination attractiveness level.

This paper may serve as a guideline to the creators of tourism development policies, primarily as a basis for a further analysis of factors contributing to tourism competitiveness. Apart from the price, which is important for the improvement of tourism competitiveness, other non-price factors should be considered for attract tourists and generate receipts.

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ОДНОС ЦЕНОВНЕ КОНКУРЕНТНОСТИ, ДОЛАСКА ТУРИСТА И ПРИХОДА ОД ТУРИЗМА У ЕВРОПСКИМ ЗЕМЉАМА

Снежана Радукић, Соња Јовановић, Марија Петровић-Ранђеловић, Зорана Костић, Ивана Илић

Извод

Цена робе и услуга представља важан фактор привлачења туриста и унапређења конкурентности дестинације. Међутим, поставља се питање да ли ниже цене у туризму доприносе већем броју долазака туриста и већим приходима од туризма. Сврха овог рада је да анализира одно између ценовне конкурентности и долазака туриста и прихода од туризма у европским земљама. У раду се путем кластер анализе испитује хомогеност европских земаља у погледу конкурентности цена туризма на основу Извештаја о конкурентности путовања и туризма за 2017. годину. Резултати истраживања су показали да европске земље нису хомогене у погледу конкурентности цена туризма као што се сматрало. Штавише, земље са нисим нивоом ценовне конкурентности привлаче већи број туриста и остварују веће приходе од туризма у поређењу са земљама са вишим нивоом ценовне конкурентности.

Кључне речи: ценовна конкурентност, доласци туриста, приходи од туризма, кластер анализа, европске земље


