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Homogeneity analysis of south-eastern European countries according to tourism competitiveness performances

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The purpose of this research is to analyse the competitiveness of south-eastern Europe (SEE) countries with the help of The Travel and Tourism Competitiveness Index (TTCI) and The Global Competitiveness Index (GCI), as well as to explore the correlation and mutual influence of these two indices. The aim is to explore the homogeneity of SEE countries according to tourism competitiveness performance. The research was conducted on the basis of secondary data sources and statistical methods, with emphasis on the cluster analysis. Structurally, the article is composed of the following parts: Analyses of the competitiveness of SEE countries according to GCI and TTCI, exploration of SEE countries homogeneity according to the GCI and the TTCI sub-indices, as well as according to the pillars within the TTCI. The research results indicate that there exists a high correlation between the TTCI and GCI, as well as that SEE countries are not homogenous according to these indices. The research provides the initial framework for benchmarking the tourism performance of different countries, and determination of objectives and strategies for improving tourism competitiveness.

Keywords: tourism; competitiveness; cluster analysis; Global Competitive Index (GCI); Travel and Tourism Competitiveness Index (TTCI)

JEL classification: L83; O52; C38

1. Introduction

At the tourism market there is a great diversity in terms of potential and levels of development. Using multivariate statistical techniques, such as cluster analysis, it is possible to classify a certain number of countries into homogenous groups and to explore their competitiveness performance. The goal of this segmentation is to identify the tourism development and competitiveness performances according to which homogenous group of countries mostly differ. Namely, it is necessary to determine the factors of competitiveness according to which the countries within one homogenous group are more advanced, compared to the countries from other homogenous group or groups. Such analyses provide a basis for directing the tourism development strategies in different countries, and they represent significant instrument for strategic planning, resource allocation, and setting the standard for benchmarking studies (Evans, Campbell, and Stonehouse, 2003).

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2. Research context – tourism development as a determinant of national competitiveness

'Tourism role in the economy is a very important one, being a provider of many employment opportunities, and an important part of the production process that takes place in the economy on any country' (Surugiu, Leitão, and Surugiu, 2011). The development of the tourism industry is especially relevant for underdeveloped countries and developing countries. In these countries, tourism sector development affects the stimulation of economy growth (Beech and Chadwick, 2006; Cooper, Flecher, Fyall, Gilbert, and Wanhill, 2008).

The tourism industry has recorded continual expansion and growth over recent decades. Tourism has become one of the largest industries in the world (Page and Connel, 2009). Many destinations in developing countries have recently become very attractive on a global level. Contemporary tendencies in tourism development are towards increasing the number of destinations, and the number of countries which prioritise tourism development (Bălan, Balaure, and Veghes, 2009). The previous period has been characterised by a higher concentration of tourists in a relatively small number of countries.

> 'The competitiveness of tourist destinations becomes increasingly important to the countries that intend to control a large share of rapidly growing tourism market. That is particularly important to the tourism-dependent countries, which heavily rely on the situation in tourism and travel industry' (Navickas and Malakauskaite, 2009, p. 37). Because of that, the consideration of competitiveness factors has particular importance. Those factors include a set of institutional, infrastructural, human, cultural, and natural resources (Navickas and Malakauskaite, 2009). The measuring of tourism competitiveness was enabled by the Travel and Tourism Competitiveness Index (TTCI) methodology, developed by the World Economic Forum (WEF) This index includes a number of tourism growth and development indicators, and provides opportunities for comparison of the determinants of tourism competitiveness among the different countries (Jovanović, Janković-Milić and Vučić, 2009, p. 112).

Methodology, as mentioned above, provides information for the evaluation of tourism resources usage efficiency, as well as other necessary assumptions and preconditions for tourism development. Analysis of tourism competitiveness provides identification of key areas that need improvement. In that way the greater contribution of tourism growth and tourism competitiveness to the overall economy growth and national competitiveness can be achieved. The Global Competitiveness Index (GCI), developed by the WEF, is used for measuring and monitoring the country's competitiveness level.

3. Research methodology

The object of the analysis in this article is to explore the homogeneity of south-eastern European (SEE) countries (Macedonia, Bulgaria, Albania, Bosnia and Herzegovina, Croatia, Slovenia and Hungary) according to performances of tourism industry development and competitiveness by cluster analysis (Veal, 2011, p. 493). The competitiveness performances in these countries are presented by GCI and TTCI. In this article, the following hypotheses are tested:

Hypothesis 1: *There is a strong correlation between the GCI and the TTCI in SEE countries.*

Hypothesis 2: *SEE countries are not homogeneous in terms of tourism sector development and competitiveness performances.*

The aim of this article is to explore the correlation between GCI and TTCI, as well as to determine the contribution of changes (growth) of TTCI to the changes (growth) of GCI. The aim is also to explore the homogeneity of SEE countries according to performances of competitiveness based on GCI. After that, the objective is to explore the degree of homogeneity of SEE countries according to competitiveness performances based on TTCI. The task is to explore whether the TTCI as indicator is sufficient for the analysis of countries' homogeneity. The ultimate goal of this exploration of countries' homogeneity is that each country from the sample can identify its competitive position compared to other countries.

The following statistical methods were applied in this article: cluster analysis, analysis of variance, correlation analysis, and regression analysis. The information base for this research are data from The Global Competitiveness Report 2011–2012 (WEF 2011), and The Travel and Tourism Competitiveness Report 2011 (WEF, 2011).

4. Research results and discussions

Research results and discussions in this article are organised as follows:

- Analysis of SEE countries' competitiveness according to GCI and TTCI;
- Exploring SEE countries' homogeneity according to GCI and TTCI sub-indices;
- Exploring SEE countries' homogeneity according to the pillars within TTCI.

4.1. Analysis of SEE countries' competitiveness according to GCI and TTCI

The TTCI is a generally accepted indicator of the destinations' competitiveness or tourism sector competitiveness at the level of national economies. The main goal of this Index is to measure the factors and policies that affect the attractiveness and tourism development in different countries (The T&T Competitiveness Report 2011, 2011, p. 46). This Index consists of three sub-indices: 'Regulatory Framework, Business Environment and Infrastructure, and Human Cultural and Natural Resources' (The T&T Competitiveness Report 2011, 2011). Each sub-index contains certain number of pillars by which evaluation of competitiveness in tourism is performed. The total number of pillars within the TTCI is 14.

The indicator of the competitiveness level of national economies is the GCI. The base of this Index is composed of the three sub-indices: 'Basic Requirements, Efficiency Enhancers, and Innovation Factors' (The Global Competitiveness Report 2011–2012, 2012). Each sub-index is composed of a number of pillars, which help to perform the estimation of national competitiveness. The total number of pillars within the GCI is 12.

Analysis of SEE countries' rank according to GCI and TTCI within the designated group (Table 1) shows that the rank of the countries according to both indicators is similar or the same. Namely, six out of 10 countries (Montenegro, Albania, Macedonia, Serbia, Bosnia and Herzegovina, and Romania) have the same rank according to both GCI and TTCI, while other countries (Slovenia and Bulgaria) have similar positions. The difference in position is only significant in the case of Croatia. More precisely, this country has a better ranking according to TTCI, compared to GCI.

Table 2 shows that there is a strong correlation between GCI and TTCI (0.862). This correlation is also positive, i.e. direct.

Table 1. The GCI and TTCI (2011 ranking and score).

Country	GCI 2011–2012		TTCI 2011		Rank within the group according to GCI	Rank within the group according to TTCI
	Rank	Score	Rank	Score		
Slovenia	57	4.30	33	4.64	2	1
Croatia	76	4.08	34	4.61	5.5	2
Montenegro	60	4.27	36	4.56	3	3
Albania	78	4.06	71	4.01	7	7
Macedonia	79	4.05	76	3.96	8	8
Serbia	95	3.88	82	3.85	9	9
Bosnia and Herzegovina	100	3.83	97	3.63	10	10
Hungary	48	4.36	38	4.54	1	4
Bulgaria	74	4.16	48	4.39	4	5
Romania	77	4.08	63	4.17	5.5	6

Source: According to The Global Competitiveness Report 2011–2011 (WEF, 2012) and The T&T Competitiveness Report 2011 (WEF, 2011; www.weforum.org).

Table 2. Values of Spearman's rank correlation coefficient between the GCI and the TTCI for SEE countries in 2011.

Index	GCI 2011
GCI 2011–2012	1
TTCI 2011	0.862* (0.001)

Source: Author's calculations.

The application of simple regression analysis resulted in the following regression model formulated as Eq. (1):

$$GCI_i = 2,338 + 0,418\, TTCI_i \tag{1}$$

The parameter value of 0.418 indicates positive contribution of TTCI growth to GCI growth.

Strong correlation between these indices served as the basis for the analysis of SEE countries homogeneity according to GCI and TTCI. Therefore, the analysis will start from the homogeneity in the countries' rank according to TTCI and GCI.

If we analyse the rank of all countries according to the Report (The T&T Competitiveness Report 2011, 2011) concerning TTCI for 2011, SEE countries occupy a rather wide range of positions, i.e. from 33rd position to the 97th position out of 139 countries.

Furthermore, if we consider the ranking of these countries according to the GCI score in 2011, it can be observed that the positions range between the 48th and 100th out of 142 countries worldwide. This refers to the fact about a narrower rank range of SEE countries according to national competitiveness. At the same time, we can observe the possibility of classifying the countries into three groups, according to distance, i.e. range of ranks by the GCI scores (Table 3): Group 1 – Hungary, Slovenia, and Montenegro (range from positions 48 to 60); Group 2 – Bulgaria, Croatia, Romania, Albania and Macedonia (range from positions 74 to 79) which is at the same time the most homogenous group according to GCI, and finally Group 3 – Serbia, and Bosnia and Herzegovina (range from positions 95 to 100 rank).

Table 3. Groups of SEE countries according to the GCI rank (2011).

Country	Group
Slovenia	1
Croatia	2
Montenegro	1
Albania	2
Macedonia	2
Serbia	3
Bosnia and Herzegovina	3
Hungary	1
Bulgaria	2
Romania	2

Source: Author's calculations.

Such positioning of the countries is the basis for SEE countries' homogeneity exploration, i.e. cluster analysis with three pre-defined clusters.

4.2. Exploring SEE countries' homogeneity according to GCI and TTCI sub-indices

The method of multivariate analysis used for categorisation or classification of individual units (countries) according to their measured characteristics of similarity or dissimilarity in the literature is known as cluster analysis or group analysis (Kumar, 2010) (Hardle and Simar, 2003).

> 'Cluster analysis consists of a group of multivariate techniques that classify subjects into clusters, so that each subject is very similar to other subjects in that cluster with respect to selected criterion variables. The clusters formed exhibit high within cluster homogeneity and high between cluster heterogeneity. Thus, when good classification is achieved, subjects within clusters will be close together when plotted geometrically, but different clusters will be far apart'

(Chandra and Menezes, 2001, p. 89, p. 90).

There are a number of methods for grouping objects into clusters (Rencher, 2002) (Kujundžić-Tiljak and Ivanković, 2009). The basic classification of those methods is hierarchical and non-hierarchical clustering methods. K-means cluster analysis, which is used in this research, belongs to the non-hierarchical methods of clusterisation. Unlike hierarchical cluster analysis which results in successive connection of objects into larger clusters, K-means method is characterised by only one solution for the predetermined number of clusters.

Application of K-means cluster analysis in Statistical Package for the Social Sciences (SPSS) includes the special algorithm which classifies objects into the nearest cluster. The algorithm for this form of cluster analysis is a method of the nearest centroid sorting (Anderberg, 1973). The cluster centre is the mean of all variables, calculated on the basis of all units that compose the cluster. After the association all of new units, it is possible to recalculate the cluster centres. These centres are called final cluster centres (FCC).

In this research, the cluster analysis is applied with the aim of examining whether the structure of homogeneous groups changes if we fragment GCI and TTCI into their sub-indices. In this sense, the variables for SEE countries' clusterisation are GCI and TTCI sub-indices.

Cluster analysis of SEE countries according to sub-indices of the GCI. Cluster analysis of the mentioned countries according to the sub-indices of the GCI (Table 4) determined the following structure of clusters:

- Cluster 1: Slovenia;
- Cluster 2: Croatia, Montenegro, Hungary and Bulgaria;
- Cluster 3: Albania, Macedonia, Serbia, Bosnia and Herzegovina, and Romania.

The use of FCC shown in Table 5, has demonstrated that cluster 1 (only Slovenia) has the highest value of all sub-indices within GCI. Cluster 2 includes countries with lower values of GCI sub-indices, compared to Cluster 1. Cluster 3 consists of the countries with the lowest values of the GCI sub-indices.

If we analyse group membership of the countries according to GCI rank (see Table 3) and cluster membership of the countries according to the GCI sub-indices (see Table 4), we notice that only Slovenia maintained the same position within the observed group of countries, because it belongs to the group and cluster which have the best scores or the best performance level. On the other hand, Serbia and Bosnia and Herzegovina have also maintained membership in the same group and the same cluster, indicating the worst result (the third group and the third cluster), which can be seen in Tables 3 and 4. With the rest of the countries, we notice different positioning in the group and cluster.

Cluster analysis of SEE countries according to the TTCI sub-indices.

The cluster analysis of SEE countries according to the sub-indices of TTCI (Table 6), determines the following structure of clusters:

Table 4. Cluster of countries according to sub-indices of GCI (2011–2012 score).

Country	Basic requirements	Efficiency enhancers	Innovation factors	Cluster membership
Slovenia	5.12	4.23	3.87	1
Croatia	4.76	4.01	3.37	2
Montenegro	4.69	4.07	3.62	2
Albania	4.53	3.87	3.18	3
Macedonia	4.55	3.83	3.14	3
Serbia	4.28	3.73	2.99	3
Bosnia and Herzegovina	4.25	3.63	3.13	3
Hungary	4.72	4.39	3.75	2
Bulgaria	4.46	4.10	3.24	2
Romania	4.28	4.09	3.20	3

Source: According to Global Competitiveness Report 2011–2012 (WEF, 2012; www.weforum.org).

Table 5. Final cluster centres for sub-indices of GCI.

	Cluster		
Sub-indices of GCI	1	2	3
Basic requirements 2011–2012	5.12	4.66	4.38
Innovation factors 2011–2012	4.23	4.14	3.83
Efficiency enhancers 2011–2012	3.87	3.50	3.13

Source: Author's calculations.

Table 6. Clusters of countries according to sub-indices of the TTCI (2011 score).

Country	Regulatory framework	Business environment and infrastructure	Human cultural and natural resources	Cluster
Slovenia	5.19	4.70	4.03	1
Croatia	5.02	4.58	4.23	1
Montenegro	5.15	4.15	4.38	1
Albania	4.79	3.30	3.93	2
Macedonia	4.78	3.49	3.62	2
Serbia	4.57	3.39	3.60	3
Bosnia and Herzegovina	4.24	3.14	3.49	3
Hungary	5.29	4.28	4.06	1
Bulgaria	4.79	4.32	4.05	1
Romania	4.85	3.80	3.84	2

Source: According to the T&T Competitiveness Report 2011 (WEF, 2011; www.weforum.org).

- Cluster 1: Slovenia, Croatia, Montenegro, Hungary and Bulgaria;
- Cluster 2: Albania, Macedonia and Romania;
- Cluster 3: Serbia, and Bosnia and Herzegovina.

As we can see in Table 6, SEE countries are classified into clusters, but such classification cannot clearly identify the performance of the determined homogeneous groups. The FCC (Table 7) has shown that Cluster 1 consists of countries that have the highest values of the TTCI sub-indices. Cluster 2 is characterised by medium values of the TTCI sub-indices (Albania, Macedonia, and Romania). In Cluster 3 there are countries with the lowest values of the TTCI sub-indices (Serbia, and Bosnia and Herzegovina).

Based on the comparison of the cluster analysis results according to the GCI sub-indices and cluster analysis according to the TTCI sub-indices, it can be pointed out that within the observed sample the situation is as follows:

- There is only one country (Slovenia) in the cluster with the best performances according to GCI sub-indices;
- Five countries (Slovenia, Croatia, Montenegro, Hungary, and Bulgaria) constitute a homogeneous group (cluster) with the best performances according to TTCI sub-indices.

Bearing in mind facts about the size of the homogeneous groups identified by previous cluster analysis, we decided to make a more detailed exploration of SEE countries' homogeneity according to pillars within TTCI.

Table 7. Final cluster centres for sub-indices of the TTCI.

	Cluster		
Sub-indices of the TTCI	1	2	3
Human cultural and natural resources 2011	4.15	3.80	3.55
Business environment and infrastructure 2011	4.41	3.53	3.27
Regulatory framework 2011	5.09	4.81	4.41

Source: Author's calculations.

4.3. Exploring SEE countries' homogeneity according to the pillars within TTCI

Each of the pillars within TTCI sub-indices consists of a number of variables. The score of the pillar is obtained by measuring, transforming, and calculating the average score of variables. The range of the scores is from 1 to 7. Transforming the data, i.e. their ranking on the scale from 1 to 7 provides the comparativeness of TTCI among countries. The score of each pillar is calculated as the unweighted mean of the variables scores incorporated in a certain pillar. Score of sub-index is unweighted mean of contained pillars' scores.

The methodology of TTCI calculation, which has been pointed out previously, indicates the equal participation of all sub-indices, as well as pillars included in sub-indices, in TTCI. The overall TTCI score is the unweighted mean of the three sub-indices. This statement indicates the need of analysis of countries' homogeneity taking into consideration all of the pillars within TTCI.

The cluster analysis by pillars within the T&T Regulatory Framework sub-index. There are five pillars within the first sub-index of the TTCI (T&T Regulatory) framework: 'Policy Rules and Regulation, Environmental Sustainability, Safety and Security, Health and Hygiene, and Prioritisation of Travel and Tourism' (The T&T Competitiveness Report 2011, 2011).

The Policy Rules and Regulation, as a pillar of the first sub-index, provide information about the extent to which the environment of a country is able to provide an adequate ambient for the tourism development. Environmental Sustainability is very important for increasing the country's attractiveness. The preserved natural environment is an important component not only for sustainable development, but also for tourism sector development. Safety and Security largely determine the competitiveness of the national tourism industry, as well as Hygiene, availability of drinking water and health system of a country. The tourism competitiveness of a country depends on the degree to which the state gives priority to this sector. The priority given to the tourism sector can be seen in the structure of the state budget. Besides, the number of projects for tourism development is also the indicator of priority of a government. The amount of government investment in tourism may favourably influence investors to contribute more to its development.

Table 8 shows scores of pillars within sub-index Regulatory Framework of each country, as well as cluster membership.

According to the pillars shown in Table 8, i.e. variables in a cluster analysis, the following structure of SEE countries clusters is determined:

- Cluster 1: Slovenia, Croatia, Hungary and Bulgaria. This group of countries has the best regulatory framework in comparison to other countries from the sample. The countries within this cluster are the most advanced in the regulation of the tourism sector in all five areas presented in Table 8.
- Cluster 2: Montenegro, Albania, Macedonia, Serbia and Romania. This is a group of countries that are lagging behind the countries from the first cluster in terms of specified pillars.
- Cluster 3: Bosnia and Herzegovina, which has the weakest performance of the T&T Regulatory Framework. This can be a guideline for policymakers in the field of the travel and tourism sector in this country in order to improve T&T Regulatory Framework according to the practice of Slovenia, Croatia, Hungary, and Bulgaria.

Table 8. Clusters structure according to pillars of the TTCI sub-index T&T Regulatory Framework (2011 score).

Country	Policy rules and regulations	Environmental sustainability	Safety and security	Health and hygiene	Prioritisation of T&T	Cluster
Slovenia	4.44	5.19	5.65	5.81	4.88	1
Croatia	4.33	4.87	5.47	5.97	4.47	1
Montenegro	5.25	4.87	5.40	5.32	4.89	2
Albania	4.65	4.52	5.27	4.87	4.67	2
Macedonia	4.33	4.58	5.36	5.65	3.99	2
Serbia	4.39	3.95	4.85	5.65	4.01	2
Bosnia and Herzegovina	3.55	4.14	5.37	4.99	3.18	3
Hungary	4.90	5.04	5.32	6.46	4.71	1
Bulgaria	4.10	4.18	4.55	6.65	4.48	1
Romania	4.46	4.82	5.45	5.10	4.43	2

Source: The T&T Competitiveness Report 2011 (WEF, 2011; www.weforum.org).

The significance of differences in mean scores among clusters were tested by a statistical technique named analysis variance. This testing showed that a statistically significant difference exists between the clusters within the pillar – Health and Hygiene, and within the so-called pillar Prioritisation of Travel and Tourism. There is no statistically significant difference among the clusters according to the three other pillars (Policy Rules and Regulations, Environmental Sustainability, and Safety and Security).

The cluster analysis of pillars within the T&T Business Environment and Infrastructure

The second sub-index of the TTCI consists of five pillars: 'Air Transport Infrastructure, Ground Transport Infrastructure, Tourism Infrastructure, ICT Infrastructure, and Price Competitiveness in T&T Industry' (The T&T Competitiveness Report 2011, 2011).

Air Transport Infrastructure is a very important competitive factor of the tourism sector for each country.This type of traffic provides much easier and faster transportation among countries and destinations. The next pillar within this sub-index, Ground Transport Infrastructure is particularly important for the movement and transport of passengers within the country. The pillar named Tourism Infrastructure shows its development in a country. Bearing in mind the growing importance of virtual environment for tourism development in terms of travel planning, purchasing travel arrangements, providing accommodation, the ICT Infrastructure is another important pillar. Considering that the lower costs increase a country's attractiveness for tourists, it is clear that the Price Competitiveness is an important element of tourism competitiveness.

Table 9 shows the scores of pillars within the sub-index Business Environment and Infrastructure of each country, as well as cluster membership.

According to these pillars (Table 9), the following structure of SEE countries clusters is determined:

- Cluster 1: Croatia, Montenegro and Bulgaria. Within this cluster there are countries where the business environment and infrastructure, as a support of tourism development, are the most developed.
- Cluster 2: Slovenia, Hungary and Romania. These countries lag behind the countries from the first cluster in terms of T&T Business environment and infrastructure.

Table 9. Clusters according to pillars of the TTCI sub-index T&T Business Environment and Infrastructure (2011 score).

Country	Air transport infrastructure	Ground transport infrastructure	Tourism infrastructure	ICT infrastructure	Price competitiveness in T&T	Cluster
Slovenia	2.90	5.08	6.27	4.96	4.28	2
Croatia	3.09	4.12	6.96	4.47	4.24	1
Montenegro	3.26	2.88	5.67	4.13	4.84	1
Albania	2.52	3.08	3.35	3.20	4.33	3
Macedonia	2.11	3.17	3.82	3.53	4.83	3
Serbia	2.31	2.82	4.51	3.35	3.96	3
Bosnia and Herzegovina	1.87	2.27	4.12	3.22	4.22	3
Hungary	2.86	4.63	5.15	4.35	4.40	2
Bulgaria	2.66	3.15	6.82	4.12	4.85	1
Romania	2.76	3.06	4.99	3.75	4.46	2

Source: The T&T Competitiveness Report 2011 (WEF, 2011; www.weforum.org).

- Cluster 3: Albania, Macedonia, Serbia, and Bosnia and Herzegovina. These are countries where the air transport, ground transport, tourism infrastructure, ICT infrastructure, price competitiveness of the tourism services, price competitiveness of goods and services that support the tourism sector are not sufficiently developed yet.

By testing the difference significance among the clusters according to pillars (within this TTCI sub-index), we found that clusters do not differ significantly according to pillars – Ground Transport Infrastructure and Price Competitiveness in T&T. Difference among clusters is statistically significant in terms of quality and intensity of air transport, tourism infrastructure, and ICT infrastructure.

The cluster analysis by pillars within the T&T Human, Natural and Cultural Resources

The third TTCI sub-index, T&T Human, Natural, and Cultural Resources is composed of four pillars: 'Human Capital, Affinity for Travel and Tourism, Natural Resources, and Cultural Resources' (The T&T Competitiveness Report 2011, 2011). Table 10 shows scores of pillars within the sub-index Human, Natural, and Cultural Resources of each country, as well as cluster membership.

Health, education and skill level of employees are frequently used in order to measure the quality of human resources, as an essential factor of tourism competitiveness (Janković Milić, Jovanović, & Krstić, 2011). Within this pillar, the availability of skilled labour is analysed as well. Element of competitiveness – an Affinity for Travel and Tourism provides information about country's openness to tourism and reception of visitors. The population's openness to visitors and tourism strongly affects the competitiveness of the tourism industry in a country. Regarding the natural resources, it is obvious that they are an important factor of the competitiveness of tourism industry. The competitiveness of a country based on natural resources depends on its capability to provide the visitors with access to those resources. Within the TTCI there is another pillar which is related to cultural resources of a country (Jovanović & Janković Milić, 2011).

According to pillars of the sub-index *Human, Cultural, and Natural Resources*, the following structure of SEE countries clusters is determined:

Table 10. Clusters of countries according to the pillars of the TTCI sub-index T&T Human, Natural, and Cultural Resources (2011 score).

	Human capital	Affinity for T&T	Natural resources	Cultural resources	Cluster
Slovenia	5.14	4.83	3.34	2.82	3
Croatia	4.73	5.30	3.00	3.90	2
Montenegro	5.21	5.92	3.23	3.18	1
Albania	5.00	6.33	2.38	1.99	1
Macedonia	4.82	4.77	2.70	2.18	3
Serbia	4.81	4.62	2.23	2.72	3
Bosnia and Herzegovina	4.81	4.74	2.25	2.17	3
Hungary	5.13	4.35	2.60	4.17	2
Bulgaria	4.88	4.80	2.98	3.52	2
Romania	4.93	4.42	2.69	3.33	2

Source: The T&T Competitiveness Report 2011 (WEF, 2011; www.weforum.org).

- Cluster 1: Slovenia, Croatia, Hungary, and Bulgaria. This group of countries has the best regulatory framework in comparison to other countries from the sample. The countries within this cluster are the most advanced in the regulation of the tourism sector in all five areas presented in Table 8.
- Cluster 2: Montenegro, Albania, Macedonia, Serbia and Romania. This is a group of countries that are lagging behind the countries from the first cluster in terms of specified pillars.
- Cluster 3: Bosnia and Herzegovina, which has the weakest performance of the T&T Regulatory Framework. This can be a guideline for policymakers in the field of the travel and tourism sector in this country in order to improve the T&T Regulatory Framework according to the practice of Slovenia, Croatia, Hungary, and Bulgaria.

Statistically significant differences are determined between clusters within the pillar Affinity for Travel and Tourism and the pillar Cultural Resources, while the pillar Human Capital and the pillar Natural Resources, showed no significant differences between the clusters.

The highest score of pillar Affinity for Travel and Tourism determined the position of Montenegro and Albania in the first cluster. Having in mind this fact, the countries in the third cluster – Slovenia, Macedonia, Serbia, and Bosnia and Herzegovina – should make improvements in the institutional component of tourism development. The most pronounced heterogeneity of countries is within the pillar Cultural Resources. According to this pillar, Albania has the lowest score, although this country belongs to the first cluster. Therefore, it is a guideline for Albanian policymakers in the field of tourism development to pay greater attention to Cultural Resources.

5. Conclusion

Tourism is a very important industry in the world economy in contemporary conditions. It is also an important lever in the development of other industries. The significance of research results is reflected in the fact that travel and tourism policymakers in the countries within the second and third clusters can identify the critical elements which should be emphasised in their programmes and strategies for travel and tourism development following the example of countries in the first cluster.

The limitation of this analysis is the countries heterogeneity within pillars of TTCI, which is determined by existence of statistically significant difference in the average scores of each pillar. However, the key contribution of this research is that it provides a necessary, initial framework for benchmarking analysis of tourism performance of SEE countries. With the help of futher analyses of each pillar within the TTCI sub-indices, these countries will be able to specify the concrete elements for the formulation future policy in the field of travel and tourism development and improvement of national strategies.

Tourism development of SEE countries has different levels, which is confirmed by their positions on the competitiveness world list as measured by the TTCI. The analysis of SEE countries according to TTCI score in 2011 showed that the order of the positions is as follows: Slovenia (33), Croatia (34), Montenegro (36), Hungary (38), Bulgaria (48), Romania (63), Albania (71), Macedonia (76), Serbia (82), and Bosnia and Herzegovina (97). This distribution of countries' positions is similar to the their order

according the GCI scores in 2011. The strong correlation between the TTCI and GCI suggests that the analysed countries should innovate tourism development strategies in order to increase the overall competitiveness. It is important to stress that increase of the TTCI significantly contributes to the GCI. In other words, the increase in the tourism competitiveness of the country enables an increase in its overall competitiveness. Thus, the first hypothesis of the research is confirmed.

However, based on previously analysed rankings of countries according to GCI and TTCI, we can observe several homogenous groups of SEE countries. This imposed the need to explore whether the structure of the noticed homogenous groups changes if we apply the cluster analysis according to sub-indices of GCI and TTCI. The results of the cluster analysis have shown that the structure of clusters is different. It was found that a larger number of countries (five countries) belong to the cluster with the best performances according to the TTCI sub-indices, compared to the number of countries which belong to the cluster with best performances according to the GCI sub-indices (one country). Having in mind previous considerations, this research included an analysis of countries' homogeneity according to the pillars within the TTCI. The analysis led to the conclusion about different structure of the clusters according to the TTCI pillars. These analyses refer to the final conclusion that SEE countries are not homogenous in terms of the tourism competitiveness performance and tourist sector development. Therefore, the second hypothesis of the research is also confirmed. In addition, the benefit of countries' homogeneity exploration is that one country, following the example of countries which are separated into clusters with the best performances, can create a tourism development policy for the future.

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