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Article

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Measuring Convergence in Tourism Competitiveness of Natural and Cultural Resources: A Case of the Balkans and Eastern Europe[1]

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Abstract

The publication The Travel and Tourism Competitiveness Report encompasses the latest data on the travel and tourism competitiveness. Given that this report is a leading product of the World Economic Forum platform, it serves as a strategic benchmark for future policy implementation. Natural and cultural resources are significant in explaining tourism competitiveness. The empirical study in this paper is based on the two-step process of measuring convergence of tourism competitiveness. The first step illustrates the values of competitiveness of natural and cultural resources for two groups of European countries: the Balkans and Eastern Europe and five high-ranking European countries in the field of cultural tourism. The second part applies the entropy method for measuring convergence of competitiveness of this group of countries. For analyzing tourism competitiveness in these two groups of countries, ten indicators were used: five for natural resources and five for cultural resources. The results show that natural and cultural resources are the critical drivers of competitiveness and represent the determinants of tourism performance in the future.

Keywords: *convergence, tourism, competitiveness, natural resources, cultural resources*

JEL Classification: Z30, Z32

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Introduction

Tourism has become one of the largest and fastest growing economic sectors in the world due to continued expansion and diversification (Pizzuto and Sciortino, 2021) and is considered an international industry and the largest provider of jobs that not only constitutes a modern driving force for the development process, but also helps accelerate the recovery of the global economy (Katrakilidis et al., 2017). This is supported by the following global tourism indicators (WTTC, 2021): it participates in the creation of 10.4% of global GDP or in absolute terms with about 9.200 billion USD; it participates in world employment with about 334 million or 10.6%, and generates export of 1.700 billion USD a year, which represents 6.8% of export of all goods and services, or 27.4% of export of services.

Tourism as an economic branch has significantly advanced and developed in recent years, and the number of business and tourist trips is continuously increasing (Zdravković and Peković, 2021). The tourism industry has long ago gotten recognition as a catalyst for economic development of many countries in last decades (Hepsag, 2016), i.e. tourism is today considered one of the most dynamic sectors of the modern world economy (Pshenichnykh et al., 2020).

The paper uniquely examines the existence of convergence of natural and cultural resources using competitiveness data of two groups of European countries: 11 selected countries of the Balkans and Eastern Europe: Albania, Bosnia and Herzegovina, Bulgaria, Hungary, Moldova, Montenegro, Northern Macedonia, Romania, Serbia, Slovakia and Slovenia (BEE) and five highly ranked European countries in the field of cultural tourism: France, Spain, Italy, Germany and Netherlands (HRE). The contribution of the paper is reflected in the systematization of different and often controversial theoretical understandings of convergence in the tourism industry. The key contribution of the paper is reflected in the analysis of natural and cultural resources as a source of tourist destination competitiveness. The results indicate the need to further strengthen the competitiveness of tourist destinations in order to achieve equal development and distribution of tourist movements.

The paper is divided into several logically connected units. The first part reviews the relevant literature in the analyzed areas: convergence in the tourism industry, as well as tourism competitiveness of natural and cultural resources. It shows the extent to which the theory in this area has evolved and how issues of convergence are becoming important for the development of tourism. The second part includes data collected for research purposes. The third part describes in detail the used methodology. The research results and the discussion of the obtained results are presented in the fourth part of the paper.

1. Literature Review

Scientists have studied various aspects of tourism, including the relationship between tourism and economic growth and the convergence between general tourist flows in the country and tourist flows of individual countries (Pshenichnykh et al., 2020). The growing global role of tourism has mobilized researchers who have attempted to study its various aspects, with an emphasis on the causal relation between tourism (arrivals or revenue) and economic development (Katrakilidis et al., 2017).

Convergence in the tourism industry is a fairly new area of research. Narayan (2007) was one of the first researchers to propose the use of tourism convergence. Using an assessment of convergence of general tourist flows to a specific country and the tourist flows of individual countries that send tourists to that country, he proposed to test marketing policy effectiveness in the field of tourism.

The importance of studying the case of convergence in the tourism sector is the way of measuring and evaluating the successful implementation of strategies that contribute to the promotion of the tourism products as well as the basis for planning the strategies to be implemented in the future for attracting tourists from different destinations to a specific country (Katrakilidis et al., 2017). Evidence of convergence in the arrival of visitors from different tourism markets indicates that policy measures are appropriate or have been appropriate (Merida et al., 2016). Convergence can also be useful in planning future marketing strategies. If a marketing campaign on a certain market - source of tourism is effective, then the rate of arrivals from this market in the total arrivals will increase. A formal test, such as convergence, will be able to register this increase in the share of arrivals, indicating to policy makers that the marketing campaign was effective (Narayan, 2007). Market convergence analysis can provide a better understanding of the market structure that enables national destination tourism administration to segment markets and develop customized promotion strategies for different groups of source market (Lin et al., 2019). The case of convergence, therefore, provides a way of measuring the success of the marketing strategies and can help in the design of future strategies (Katrakilidis et al., 2017).

Various authors have tested convergence to determine whether the marketing strategies of certain countries have been successful. The main result of Narayan (2007) with the cointegration test is that there is evidence of convergence for the visitor arrivals from all countries except the Pacific Island countries. This result is useful from a political point of view, given that market tourism is more significant in markets that show some evidence of convergence. Thus, we can conclude that the current marketing strategies of Fiji, which aim to encourage the arrival of visitors to Fiji, are effective.

The purpose of Lee's (2009) study was to empirically examine the hypothesis of long – term convergence and convergence as catching up between international visitors to Singapore from Asia and international visitors to Singapore from other continents over the two periods, May 1993 to January 1997, and January 2004 to September 2007. This study suggests that marketing strategies are aimed at increasing tourist arrivals from non-Asian continents.

The main contribution of the author Hepsag (2016) is that it can be determined in which month of the year tourism markets converge and thus policy makers can review the effectiveness of tourism marketing strategies on a monthly basis. These results should be taken into account by policy makers when planning tourism market strategies to ensure sustainable growth of the tourism industry as the tourism industry is one of the prominent catalysts of economic growth in developing countries.

The author Merida et al. (2016) were the first to address the issue of convergence among Spanish tourism markets, so it was not possible to make any comparisons with previous findings in the literature, making future research necessary to test the robustness of their results. Nevertheless, the contribution of their work should help pave the way for future research on convergence in Spain and also enable replication studies in the case of other countries' tourism markets.

The results obtained by Solarin (2018) indicate strong support for the convergence hypothesis in the main tourist markets in Taiwan. The results further show evidence of convergence for types of tourism. The implication of previous results is that existing marketing policies and promotional strategies to attract tourists to the country have been effective. The results also imply that existing policies can serve as a sustainable basis for planning future marketing strategies.

A test of structural changes made by Pshenichnykh et al. (2020) revealed that thirteen countries show signs of convergence with discontinuity periods, which are mainly observed in Russia during the period 2014 – 2015. These findings mean that the policies used by the state to increase the total number of visitors arriving to Russia have been successful, and maintaining these strategies can continue to increase the number of international visitors to the country.

The findings of the authors Pizzuto and Sciortino (2021) indicate the absence of absolute convergence, leading them to accept the hypothesis of club convergence. Furthermore, the relative decline in the contribution to total arrivals and overnights of several international source markets calls for a reconsideration of the promotional strategies to stimulate the arrival of tourists from the observed countries.

Issues of competitiveness are becoming relevant in modern tourism, not only as issues of development, but also the survival of most destinations (Vašaničová and Košíková, 2019; Trajković, 2019). This is a topic that has been the most

discussed in the academic literature in recent years and has become a concept that significantly affects the sustainable development of tourism. Thus, the competitiveness of a tourist destination is related to the destination's ability to ensure its sustainable development (Dugulan et al., 2010; Kumar and Dhir, 2020).

Sustainable competitiveness, not only of tourism, but of the entire economy, requires a balance between economic, on the one hand, and environmental, social, cultural and other effects, on the other. Tourism fits in best here, as the environment in most destinations is also one of the key factors in the tourism development, therefore tourism aims to preserve the environment and resources in it.

Numerous authors have investigated various aspects of tourist destination competitiveness, with the aim of highlighting those that are dominant in ensuring competitiveness (Zehrer et al., 2017). The research results show that the key elements of tourist destination competitiveness can be: natural resources (Dwyer and Kim, 2003; Enright and Newton, 2004), culture, tradition and history (Kozak and Rimmington, 1999; Go and Govers, 2000; Heath, 2003; Su et al., 2016), destination development policy (Crouch, 2011) and price (Dwyer et al., 2000; Gooroochurn and Sugiyarto, 2005).

Natural resources are the key carrier of the largest number of tourist destinations development. According to the UNWTO (2012), over 70% of all tourism movements are directly related to natural resources. On the other hand, they are characterized by physical limitations, so excessive concentration of tourists in destinations has led to a decrease in their tourism potential (Leuschner et al., 1987; Carlsson and Johansson-Stenman, 2000), which may be a significant limitation in the future period of tourism development based on them. Therefore, research on natural resources is related to finding ways to overcome the identified problems in the form of regulating the number of tourists in tourist destinations (Deng et al., 2002), in terms of introducing certain fees when visiting these destinations (Davis and Tisdell, 1998; Reynisdottir et al., 2008).

The mass market has begun to fragment into a variety of niches, of which cultural tourism became one of the most important (Richards, 2010). Cultural tourism is considered one of the oldest types of tourism and one of the fastest growing segments of global tourism (Georgieva et al., 2017). As cultural tourism has become a major segment in most tourist destinations, cultural tourists can help create new creative or "spaces of trust" (Markwick, 2018; Richards, 2001; Richards and Palmer, 2010).

Natural environment, cultural and historical heritage are statistically significant in explaining tourism competitiveness. There is an assumption that, if cultural heritage is one of the motivators for travel, a country that has more heritage will be visited more than any other country that does not have as many landmarks

(Vašaničová and Košíková, 2019). There are three important attributes that affect the satisfaction of tourists: tourist attraction in general, cultural attraction and heritage, hospitality and diversity. The most important of these three attributes is the cultural attraction and heritage, followed by hospitality and heritage, and then the tourist attraction as such. Based on the above, it can be stated that cultural heritage is able to attract more tourists in relation to the tourist attraction. Cultural resources should be especially emphasized, as culture and tourism have mutually beneficial relationship that can strengthen the attractiveness and competitiveness of places, regions and countries (Chhabra, 2016). Modern business requires a change in the tourist product, and thus a change in the tourist market where cultural heritage is one of the elementary factors of tourist destinations attractiveness (Filipović, 2018). Culture is an increasingly important element of the tourism product, which also creates recognition in the global market. At the same time, tourism is an important tool for valorizing culture and generating income that can support and strengthen culture (Richards, 2010).

Hanafiah et al. (2017) concluded that cultural resources are powerful forces for attracting potential tourists, as well as to create an unforgettable experience for tourists, and thus increase the tourist destination competitiveness.

Based on literature review, the research hypotheses for the study can be listed as follows:

RH 1: The real degree of convergence in tourism competitiveness of natural and cultural resources with the Balkans and Eastern Europe differs amongst countries.

RH 2: Despite comparative advantage of Balkan countries, BEE countries seem to be less competitive than Eastern Europe.

RH 3: Balkan countries converge in terms of tourism competitiveness of natural and cultrural resources.

RH 4: Eastern Europe countries converge in terms of tourism competitiveness of natural and cultural resources.

2. Material and Methods

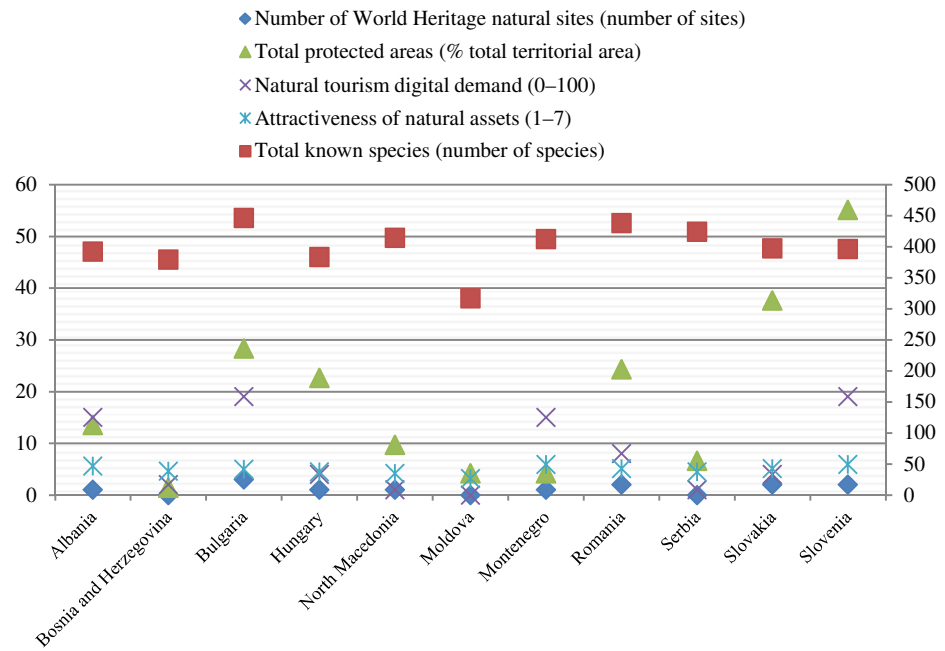
2.1. Materials

Namely, many authors have studied the competitiveness of tourism. For example, Bucher (2015) who is also based on the SEF in his studies, talks about the competitiveness index consisting of 14 pillars and 5 indicators by using cluster analysis and standardized variables. The results of this author are significant because they indicate the factors that most influence the competitiveness of European countries. Specifically, the fourth sub index of the Travel and Tourism

Competitiveness Index is interesting for the analysis of convergence within natural and cultural resources. This sub index covers the main reasons for travel and includes two pillars: Natural Resources and Cultural Resources and Business Travel (WEF, 2019). What is evident, and was also predicted by the World Economic Forum, countries with natural assets clearly have a competitive advantage in attracting tourists. This pillar includes a number of attractiveness measures, such as UNESCO World Heritage List, a measure of the quality of the natural environment which proxies the beauty of its landscape, the richness of the fauna in the country as measured by the total known species and the percentage of nationally protected areas. A country's cultural resources are another critical driver of competitiveness (European Union, 2018). This pillar includes indicators such as the number of UNESCO cultural World Heritage sites, the number of large stadiums that can host significant sport or entertainment events, and a new measure of cultural and entertainment tourism digital demand – the number of online searches related to a country's cultural resources. In addition, this part also includes the number of international association meetings taking place in a country. Competitiveness was viewed from the perspective of two groups of European countries: BEE and HRE.

F i g u r e 1

Competitiveness of Natural Resources in the BEE, 2019



Source: WEF (2021), The Travel and Tourism Competitiveness Report 2019, Geneva, Switzerland, <https://reports.weforum.org/travel-and-tourism-competitiveness-report-2019/rankings/>.

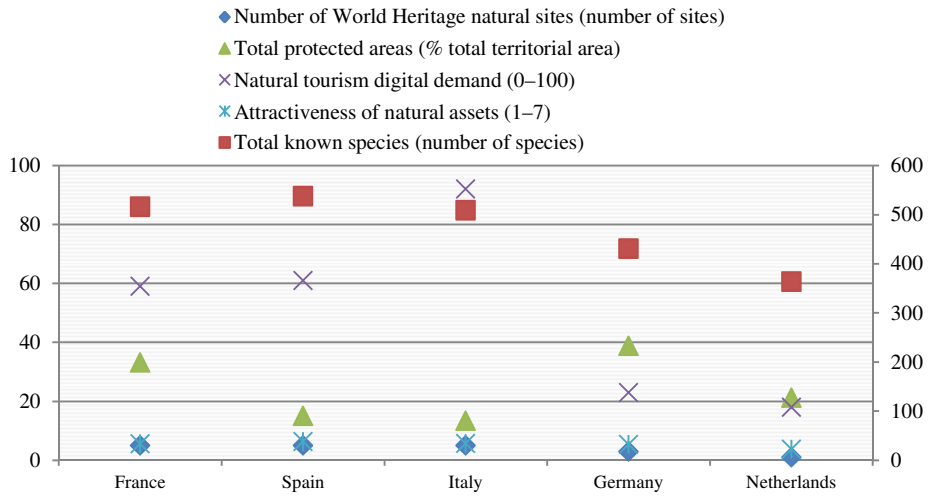
Figure 1 shows the Natural Resources Competitiveness Index values in the BEE in 2019. The observed group of countries cannot exceptionally boast compared to the leading countries in Europe when it comes to the number of Natural World Heritage sites. Most of the natural sites from the UNESCO list are in Bulgaria, while Bosnia and Herzegovina, Moldova and Serbia have not identified any UNESCO officially recognized World Heritage sites in 2019. Values of Total known species are shown on secondary axis. On the other hand, Slovenia has the highest percentage (55.1%) of the total protected natural areas of its territory. In relation to the leading European countries, Germany is the first below Slovenia with 38.8% of protected natural areas of its territory.

Looking at Figures 1 and 2, it can be seen that overall natural environment quality and attractiveness in the BEE and HRE does not deviate too much. Slovenia and Montenegro share the highest level of natural environment attractiveness from the group of BEE countries.

When observing competitiveness in the HRE, Spain was identified as country with the highest score with a natural environment quality level of 6.3. The most contributed to this result refers to the Total known species indicator (species on UNESCO list). The indicator that deviates the most, especially in BEE countries, is the natural tourism digital demand, due to different development of digital tourist offer, as well as the strength of digital technologies and information application. The similar result is also shown by the authors Güllü and Yilmaz (2020), where the top three competitive countries are France, Spain and Italy.

F i g u r e 2

Competitiveness of Natural Resources in the HRE, 2019

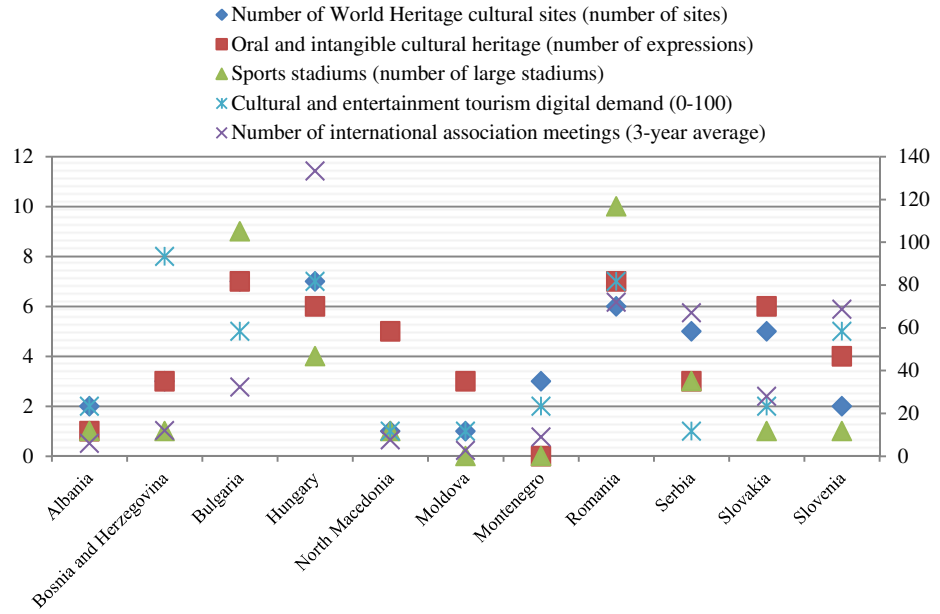


Source: WEF (2021), The Travel and Tourism Competitiveness Report 2019, Geneva, Switzerland, <https://reports.weforum.org/travel-and-tourism-competitiveness-report-2019/rankings/>.

The competitiveness of cultural resources in 2019 is shown in Figure 3 for the BEE, and in Figure 4 for the HRE. According to the World Economic Forum, five observed cultural assets indicators are: the number of UNESCO World Heritage cultural sites, the number of oral and intangible cultural heritage expressions, the number of sports stadiums, the number of international association meetings and cultural and entertainment tourism digital demand.

F i g u r e 3

Competitiveness of Cultural Resources in the BEE, 2019



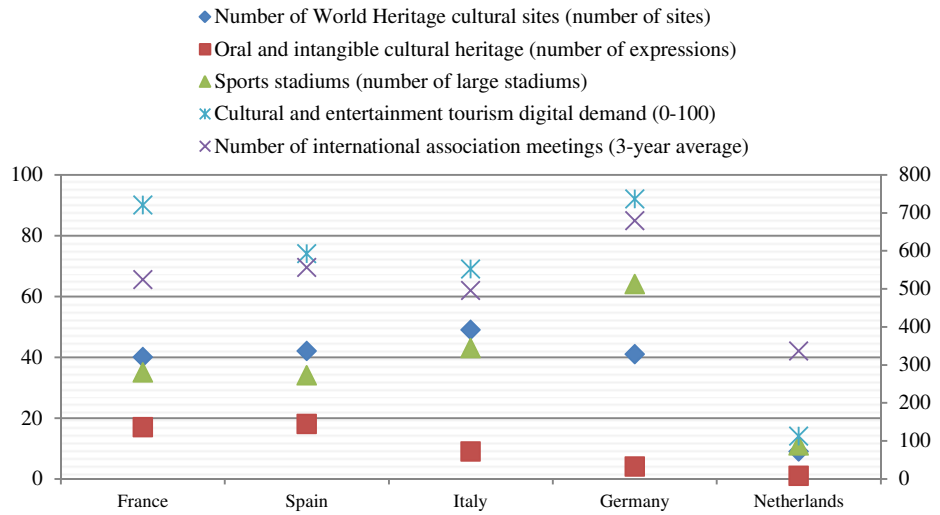
Source: WEF (2021), The Travel and Tourism Competitiveness Report 2019, Geneva, Switzerland, <https://reports.weforum.org/travel-and-tourism-competitiveness-report-2019/rankings/>.

Unlike natural sites, the number of UNESCO World Heritage cultural sites in the BEE is significantly higher. Here as well, Bulgaria is in the lead, this time together with Hungary, with 7 identified sites in 2019. On the other hand, Romania has the largest number of large sports stadiums for cultural events and manifestations. The values of indicator Number of international association meetings (3-year average) are shown in secondary axis.

The countries that are, in this case, marked as cultural and tourist leaders, have significantly more UNESCO World List sites compared to the countries of the BEE. Italy is a leader in the number of world heritage sites. The number of oral and intangible cultural expressions is significantly higher compared to the previous group of countries. Due to all its natural and cultural attractions, great number of international associations meetings are held in HRE countries.

Figure 4

Competitiveness of Cultural Resources in the HRE, 2019



Source: WEF (2021), The Travel and Tourism Competitiveness Report 2019, Geneva, Switzerland, <https://reports.weforum.org/travel-and-tourism-competitiveness-report-2019/rankings/>.

2.2. Methods

Bearing in mind that convergence can be observed within one country and within one group of countries or regions, the entropy method can serve as a good model for measuring convergence of natural and cultural resources.

The term entropy is used to define the level of order or disorder of the economic system. The concept of entropy has been presented by German physicist Clausius in the mid-nineteenth century. There are different definitions of entropy, but it can be generally defined as a measure of chaos or disorder of the system (Downarowicz and Frej, 2001). This concept is closely related to the laws of thermodynamics since entropy was first applied in thermodynamics, and then Shannon introduced it into the information theory (Shannon, 1948).

Entropy is a measure of the system disorder, and its higher value implies a higher degree of disorder. It is used in numerous scientific fields such as ecology, engineering, medicine, economics, finance, etc. (Chuansheng et al., 2012; Ermatita et al., 2012; Li et al., 2001; Guo, 2001). In the case of a convergence analysis, the increase in system disorder is defined as the process of divergence (Simionescu, 2014).

Analogous to the results of the analysis by Czyz and Hauke (2015) and Durkalic et al. (2019), the entropy method will be applied when measuring the convergence of the countries of BEE and HRE in the field of cultural and natural tourism competitiveness indicators. The information obtained from certain events is

determined by the monotonically decreasing function with probability p which is displayed in the form log $1/p$ = –log p, which is also treated as a measure of uncertainty of the occurrence of events. For a series of events x_1 and with probabilities p_i, i = 1, 2 ... n, follows (Czyz and Hauke, 2015):

$$0 \le p(x_i) \le 1, \ \sum_{i=1}^{n} p(x_i) = 1$$

The measure of entropy H (x), defined by Shannon (1948), is the expected value, which can be presented as:

$$H(x) = -\sum_{i=1}^{n} p(x_i) \log p(x_i)$$

or

$$H(x) = \sum_{i=1}^{n} p(x_i) \log_2 \frac{1}{p(x_i)}$$

The use of the logarithm function with the base 2 implies the measurement of information in bits.

The basis of Shannon function has the following characteristics:

1. H (x) ≥ 0, it is a non-negative value,

2. H (x) assumes the value of 0 when p (x_i) = 1 for a specified i, which means the absence of uncertainty among indicators,

3. H (x) assumes the highest value equal to log $_2$ n when all values of p (x_i) are equal for i = 1, 2, ..., n. The maximum value H (x) implies a complete disparity or uniform distribution. The entropy statistics H (x) applied in this paper relate to the measure of uniform distribution which gives the basis for creating an inequality measure I (x), or in the case of convergence, the measure of differences among countries. This inequality measure is useful in the study of spatial differences among countries or regions. It can be represented by the equation:

$$I(x) = H(x)_{\max} - H(x) = \log_2 n - \sum_{i=1}^{n} p(x_i) \log_2 \frac{1}{p(x_i)}$$

$$= \sum_{i=1}^{n} p(x_i) \log_2 \left[n \, p(x_i) \right]$$

za

$$0 \le I(x) \le \log_2 n$$

where I (x) = 0 shows the absence of inequality (or equal distribution), while I (x) = log $_2$ n denotes maximum non-uniformity in the occurrence of event x.

When analyzing natural and cultural resources competitiveness in tourism in BEE and HRE countries, two groups of indicators were used. The first group consists of natural resources, namely: (1) number of World Heritage natural sites, (2) total known species, (3) total protected areas (% of total territorial area), (4) natural tourism digital demand (0 – 100) and (5) the quality and attractiveness of natural environment. The second group of indicators consists of cultural assets: (1) number of World Heritage cultural sites, (2) number of oral and intangible cultural expressions, (3) number of large sports stadiums, (4) number of international association meetings and (5) cultural and entertainment tourism digital demand. All data are collected from the Travel and Tourism Competitiveness Report published by the World Economic Forum every other year. In case of time dimension, these five indicators were analyzed for the year of 2019. The reason for this choice lies in the fact that the last Report was published in 2019, and especially since 2019 preceded the turbulence that later (due to the Covid-19 pandemic) particularly affected the disturbances in the tourism market.

3. Results and Discussion

Recently, special attention has been paid to the role of entropy in tourism markets (Gu et al., 2019; Ruiz Reina, 2021; Liu et al., 2022), especially since information entropy provides greater accuracy and superior objectivity, which leads to a more comprehensive interpretation of the results (Teixeira et al., 2021). Bearing that in mind, this paper applies the just mentioned concept of entropy to measure the equality of natural and cultural resources in the context of tourism competitiveness.

By calculating entropy, as a measure of inequality, conclusion can be drawn of whether there is a convergence in the level of natural and cultural resources of two groups of European countries: BEE and HRE. In that sense, first the entropy was calculated for natural resources, and then for cultural resources of the mentioned groups of countries in 2019.

Based on entropy trends data, conclusion can be drawn that the differences in natural resource indicators in the BEE are fairly uniform and that we can talk about convergence in terms of natural resources development level. It is only the variable of the Total protected areas and Number of World Heritage natural sites which deviates slightly more. Such a result is the fact that some countries, like Slovenia, have as much as 55.1% protected area of total territorial area, which is in correlation with the authors Petrović et al., (2017) who highlighted the Slovenian overall tourism competitiveness perception as being competitive. Contrary to that result, the high obtained entropy value also indicates that some countries

have very low values of this parameter, such as, for example, Bosnia and Herzegovina (only 1.4% protected area of total territorial area). The researchers from Bosnia and Herzegovina themselves pointed out that the basic prerequisite for the formation of all other goals in tourism activity is one of the basic prerequisites for the process of forming protected areas (Mirić et al., 2015).

T a b l e 1

Entropy and Average Value of Natural Resources in Selected Countries, 2019

	Entropy (BEE)	Average value (BEE)	Entropy (HRE)	Average value (HRE)
Number of World Heritage natural sites (number of sites)	0.017741	24.473	0.157359	3.8
Total known species (number of species)	0.021118	25.191	0.014118	471.6
Total protected areas (% total territorial area)	0.022315	26.591	6.802699	17.3
Natural tourism digital demand (0 – 100)	0.018542	26.982	0.220829	50.6
Attractiveness of natural assets (1 – 7)	0.014702	26.355	0.020724	5.32

Source: Author's calculation.

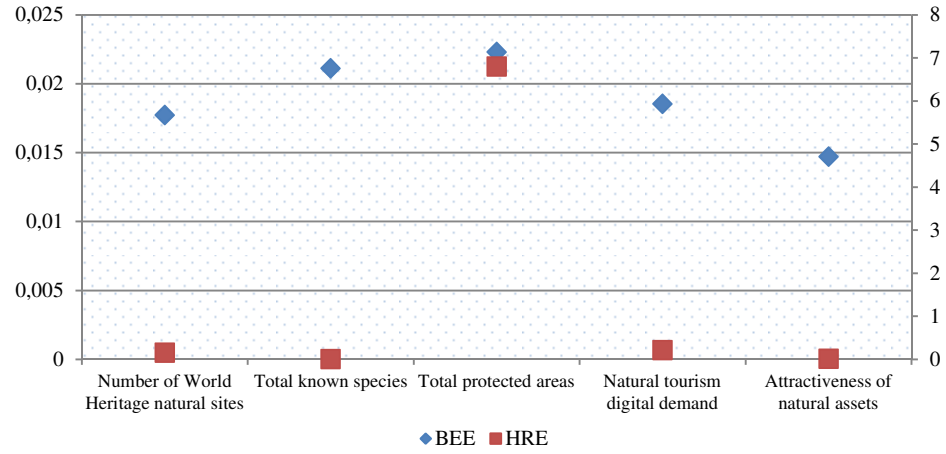
Apart from entropy, including the movement of average values of natural resources competitiveness indicators in the analysis is very important, as a convergence measure in this case. Based on the selected parameters, the average value obtained in 2019 shows even distribution of natural resources within the Balkans and Eastern Europe. However, these data are not sufficient for the convergence analysis, thus the results of the entropy method are included as well. Entropy results of natural resources shown in Figure 5.

In addition to Table 1, Figure 5 also shows the movement of natural entropy in BEE and HRE countries. Results from entropy calculation for HRE countries are shown on secondary axis. In general, entropy movement shows the inequality of natural resources in the HRE countries. The highest level of divergence is present in the total protected areas indicators, while a slight convergence was achieved in the quality and attractiveness of natural environment indicators. Bearing in mind that these are also economically highly developed countries, there are differences in natural resources, therefore, Germany has the highest number of protected areas (38.8% of its territorial area), while this indicator is the lowest in Italy (13.4% of their territorial area). These results confirm the claims of the authors Blanke and Chiesa from 2011 that Germany is a country with many nationally protected areas and many World Heritage natural sites. In addition, the authors Ozkaya and Demirhan (2022) confirm that in terms of tourism competitiveness, Germany is in the top five countries, along with France,

Italy, Spain and the United Kingdom. In contrast, the Netherlands and Spain have the strongest air transport infrastructure in terms of tourism competitiveness (Bulin et al., 2020).

Figure 5

Natural Entropy in BEE and HRE Countries, 2019



Source: Author's calculation.

In addition to natural entropy measure, cultural resources convergence level is also important for the convergence analysis in cultural tourism competitiveness. In this sense, Table 2 and Figure 6 show the entropy and average value in the BEE countries as well as the five highly ranked countries in the field of cultural tourism. The obtained results confirmed the result from the previous period 2015 – 2017, which was studied by the authors of Brelik and Grinberga-Zalita (2019), where they pointed out that some of the most competitive countries for tourism are Spain, France, Germany and United Kingdom.

Table 2

Entropy and Average Value of Cultural Resources in Selected Countries, 2019

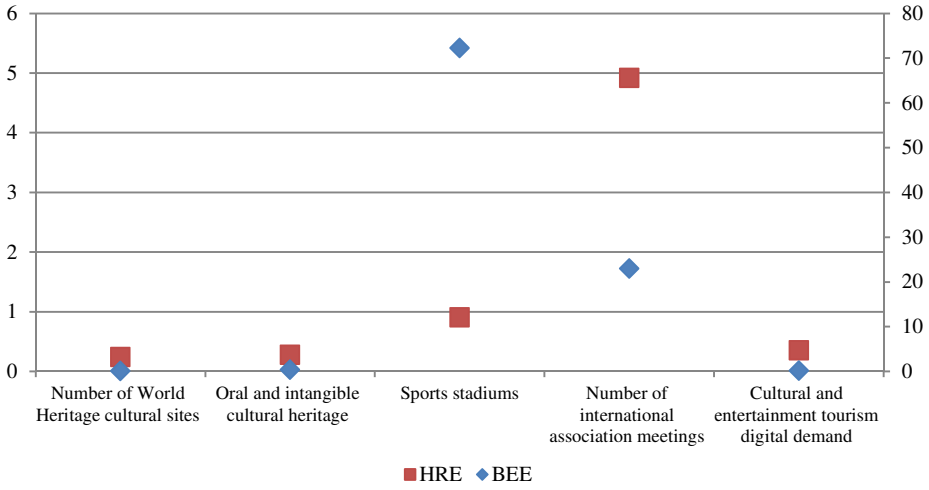
	Entropy (BEE)	Average value (BEE)	Entropy (HRE)	Average value (HRE)
Number of World Heritage cultural sites (number of sites)	0.140669	36.2	0.246681	3.82
Oral and intangible cultural heritage (number of expressions)	0.402623	9.8	0.283063	4.09
Sports stadiums (number of large stadiums)	72.28806	11	0.908574	2.82
Number of international association meetings (3-year average)	22.99615	336	4.921208	44.00
Cultural and entertainment tourism digital demand (0 – 100)	0.166713	67.8	0.35852	3.73

Source: Author's calculation.

When it comes to cultural resources, entropy scores vary widely across countries. In this case, especially in BEE countries, we cannot talk about convergence, but about divergence of cultural indicators. The biggest discrepancies stand out in terms of the indicator Sports stadiums, among which Moldova and Montenegro have none, while Romania and Bulgaria have 10 large sports stadiums. The authors Stratan et al. (2015) state as one of the critical limitations of the Moldova development of cultural tourism the low involvement of the population in the cultural and tourist manifestations held in the country. Also, big differences were observed in the indicator Number of meetings of international associations, and again Moldova is the country with the lowest values, while Hungary is the most popular when it comes to the number of international meetings. The authors Oršič and Bregar (2015) showed exactly such results, who showed that Slovenia and Hungary are the leading countries of the newly enlarged EU when it comes to the number of association events. As the main reason, the authors cite the good positioning of these countries on the market of events and membership in associations.

F i g u r e 6

Cultural Entropy in BEE and HRE Countries in 2019



Source: Author's calculation.

Entropy results for HRE countries indicate smaller differences, but existing ones. The biggest differences were obtained, as with BEE, in the indicator Number of international association meetings. The most meetings in the previous three-year period were held in Germany (679.3), while the fewest were in the Netherlands (336). It is evident that the number is significantly higher compared

to the previous group of countries, but there are also large differences between countries. Authors Cró and Martins (2018) state that such high-ranking results in terms of held meetings and competitiveness indicate key factors of the destination's success and its efficient allocation of resources. This group of countries is developing this attribute as a basic priority of tourism competitiveness. It should be noted that within the entire Travel and Tourism Competitiveness Index, Germany, Spain, the United Kingdom, France and Italy are leading countries when it comes to the indicator Number of international association meetings.

Conclusion

The importance of tourism for economic development and living standards has long been recognized. However, there are several studies that link tourism competitiveness with convergence. The study in this paper considered the global perspective of tourism competitiveness in terms of achieving equal values of two groups of European countries: BEE and HRE. The study pointed out how to measure tourism competitiveness and to simply compare through the convergence measure shown by the entropy method. The results showed that the effects are heterogeneous, especially when dealing with European countries with developed tourism. The analysis and results of natural and cultural resources have shown that these factors are the critical drivers of competitiveness and represent the determinants of tourism performance in the future. In its own way, the paper provides suggestion for the European countries to promote competitiveness of the tourism sector through natural and cultural resources and to enrich their tourist offer in that direction. In order to achieve this in the future, it is necessary to make coordinated efforts with regard to the development of tourist services.

If the comparative analysis of tourism competitiveness of natural and cultural resources with the Balkans and Eastern Europe is observed, the basic conclusion can be drawn that there are significant differences in the indicators of the two selected groups of countries, both in terms of natural and cultural resources, which studies by Martinez et al. (2020) also showed.

Based on the obtained results of entropy and average values, it can also be pointed out that BEE countries have a lower rank of competitiveness compared to HRE countries. Certainly, these countries can be a benchmark for the future development of tourism competitiveness in the context of natural and cultural resources.

As for the convergence shown by the entropy method, in the context of the natural resources of BEE countries, we can talk about the existence of convergence, while this is not the case with HRE countries, due to high differences in the Total protected areas indicator (% total territorial area). Thus, it can lead the

readers to the conclusion that this hypothesis is partially confirmed. When measuring the convergence of cultural resources, significant differences were shown in both groups of countries, which indicated that significant equality and measures of equal preferences are needed in terms of some indicators, such as, for example. Number of international association meetings. In the end, the combination of countries in terms of Number of international association meetings leads to the conclusion that competitiveness in terms of MICE tourism is really growing and that it represents an effective tool for the allocation of tourist resources.

In its own way, the paper provides suggestion for the European countries to promote competitiveness of the tourism sector through natural and cultural resources and to enrich their tourist offer in that direction. Also, paper points out the differences with which it is necessary to work in terms of marketing, or to create (based on more detailed studies) localization partnerships with the aim of redistributing tourists. During the research, the paper also possessed some limitations that can be supplemented by future research. Namely, new modern tools can be added to the entropy method for measuring and forecasting trends in the future, especially after the current crisis period from 2020 (or combination of AHP entropy method). However, the combination of competitiveness and convergence through entropy methods has brought a new application and a new approach to the assessment of convergence in tourism. In addition, data taken from the World Economic Forum and applied in this methodology give objective results. There is definitely a link between competitiveness and convergence in tourism, and further research should seek to explore these cross-actions and mechanisms so as to improve them in the future.

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