

INFRASTRUCTURE AS IMPORTANT DETERMINANT OF TOURISM DEVELOPMENT IN THE COUNTRIES OF SOUTHEAST EUROPE

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Abstract

Tourism infrastructure is the basis of tourism development and utilization of existing destination resources. Tourism infrastructure includes a large number of services, necessary to meet the needs of tourists and increase satisfaction during their stay at the destination. The subject of this paper is the consideration of relationship between the available infrastructure and the achieved level of tourism development. The paper suggests that future tourism development depends on intensive investment in infrastructure and its modernization, as an important factor of development of the tourism sector. The aim of the paper is to analyze the correlation between tourism competitiveness in the Southeast Europe (SEE) countries and the level of competitiveness of tourism infrastructure. It is noted that increase in the number of hotel rooms is a factor that largely contributes to increase in the level of tourism competitiveness of the observed group of countries.

Key words: *tourism competitiveness, the countries of Southeast Europe, infrastructure*

JEL Classification: Z32, O18, Z33

I. INTRODUCTION

In an effort to point to the importance of competitiveness in the tourism sector, one should primarily recognize the fact that tourism, as a phenomenon, depends on a very wide range of factors, and that it greatly affects the direction of the overall development of the area, and society in general. Tourism is a very complex sector of the economy, whose development affects the progress and prosperity of the national economy. Tourism sector is a component of a large series of development initiatives within any economic system. It is obvious that tourism is in an interdependent relationship with economic growth and other economic activities (Zhang, 2015). In this regard, it does not strictly mean that tourism cannot be a major source of revenue and jobs in a society, but that its impact and role vary over time.

“Tourism has been a major growth industry globally for over five decades. Factors underpinning this growth include the growth of incomes and wealth, improvements in transport, changing lifestyles and consumer values, increased leisure time, international openness and globalization, immigration, special events, education, information and communication technologies, destination marketing and promotion, improved general and tourism infrastructure and so on“ (Matias et al., 2007).

Effects that tourism generates over time are related to the economic, social, and environmental components of society. In fulfilling the social component, tourism is manifested in what is a primary or secondary activity for the majority of the population living in attractive tourist regions of the world, but also those who live in other locations and are employed in these regions (Aziri Nedelea, 2013). However, expression of these effects requires investment in tourism, where one of the most important aspects is investment in tourism infrastructure. In this regard, each country has a task to encourage maximum utilization of available tourism potentials, whose attractiveness can attract significant numbers of tourists. With the increasing number of tourists, certain destinations become more competitive and more attractive for investment in the development of tourism infrastructure.

It is clear that the tourist destination develops in a particular area at a particular time, and that it directly and indirectly affects the shaping of that area, both physiologically, through various tourism infrastructure facilities, suprastructure, and the presence of a large number of tourists, and by function, where the destination, next to the existing functions, gains the tourism function, which can be the dominant or the only function (Jovičić, 1980). Despite the fact that a destination has a number of natural beauties, lack of accommodation

facilities and quality of road infrastructure can be an obstacle for successful tourism development. The subject of the work is the assessment of the relationship between infrastructure and tourism development, while having in mind that tourism development depends on the modernization of infrastructure, and points to the need to intensify investment in infrastructure, as an important driver of improving the tourism sector.

II. BASIC ELEMENTS AND IMPORTANCE OF TOURISM INFRASTRUCTURE

Tourism infrastructure can be regarded as the physical elements that are designed and erected to cater for visitors. The strong relationship between tourism development and infrastructure has been theoretically established by a number of authors (Adebayo, Iweka, 2014).

Some authors point to the difference between tourism infrastructure and suprastructure, claiming that suprastructure depends on infrastructure. Tourism infrastructure includes ancillary and complementary facilities, equipment, systems, processes, and resources necessary for the functioning of every tourist destination. This primarily includes roads, railways, airports, and the like, which make a tourist destination accessible for tourists. In addition, infrastructure includes health care systems, services, and public services. Building on infrastructure, suprastructure includes building facilities, which exist only because of tourism activities. Their main purpose is accommodation and meeting the needs and desires of tourists, in the form of hotels, campsites, restaurants, sports facilities, and the like (Popesku, 2011).

Tourism infrastructure is the basis of tourism development, as well as a base for utilization of destination resources. The importance of tourism infrastructure is reflected in the fact that it can contribute to increasing the efficiency of production and distribution of tourism services, and, in some cases, such as remote destinations, even increase the supply of tourism services. For tourists to be able to reach some tourist destinations, there should be the developed transport infrastructure, which is a precondition for consuming other tourism services of the destination itself. The arrival of tourists enhances the efficiency of human resources at the destination, as tourists require certain services in order to feel better during their stay at the selected tourist destination. In particular, there is an increase in the demand for infrastructure services in terms of water supply, waste disposal, communication and electricity supply, as the necessary elements for comfortable functioning of tourists at the selected destination. Infrastructure is defined as the provision of public safety, transportation services, medical systems, financial systems, education systems, and other services involved in the population's, as well as in tourists' demand (Ritchie, Crouch 2005). As a component of the regional tourism product, tourism infrastructure is of special importance for long-term tourism growth and the general progress of tourist destinations in providing the required services to tourists.

Literature provides different views on the number and type of components representing tourism infrastructure. Thus, according to the Tourism & Transport Forum (Tourism & Transport Forum, 2012), tourism infrastructure is the supply chain of transport, social and environmental infrastructure collaborating at a regional level to create an attractive tourism destination. *Transport infrastructure* in this chain provides destination access to tourists from the international and domestic markets, and includes roads, airports, and railways. *Social infrastructure* relates to accommodation facilities in the form of rooms to accommodate tourists and other supporting physical structures for various kinds of activities and services that attract tourists. This infrastructure includes hotels, convention centers, stadiums, galleries, and other necessary facilities. *Environmental infrastructure* is a natural value, and refers to national parks, marine parks, and reserves which visitors can tour (Figure 1). In addition to these three types of infrastructure, tourism infrastructure includes the shared infrastructure, made of a network of regional, state, and national tourism organizations on the market where there is a tourist destination, and is engaged in the distribution of tourism products (Tourism & Transport Forum, 2012).

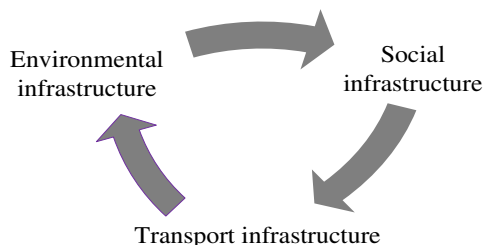


Figure 1 - Types of tourism infrastructure

Source: Tourism & Transport Forum (TTF), (2012) Tourism Infrastructure Policy and Priorities

In addition to this classification, literature often points to the classification of tourism infrastructure into four categories, namely: 1. *Physical* (Hotels, Motels, Restaurants, Transportation, Communication, Water,

Electricity); 2. *Cultural* (Culture, heritage, fairs and festivals, Local art and music, dress and dance, Language and food); 3. *Service* (Banking facilities, Travel agencies, Insurance agencies, Tourist guides); 4. *Governance* (Law and order machinery, Customs and immigration) (Figure 2).

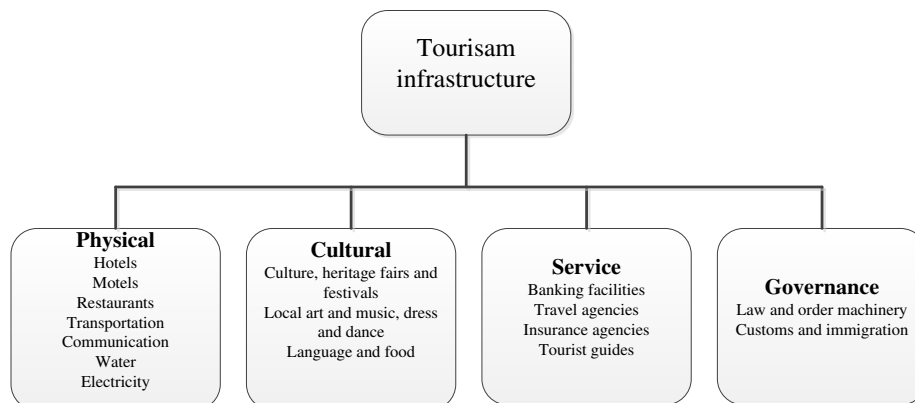


Figure 2 - Components of tourism infrastructure

Source: According to: Raina, A., *Ecology, Wildlife and Tourism Development: Principles, Practices and Strategies*, 2005. pp. 192

The issue of ownership of tourism infrastructure, which is an integral element of tourism supply chain, depends on the part observed. Infrastructure in the area of tourism is based largely on investment, coming from the private sector, and this share reaches 78% of the total investment in tourism (Tourism & Transport Forum, 2012). Social infrastructure is financed mainly from the private sector, while environmental infrastructure belongs to the state and includes public goods. Transport infrastructure is mostly owned by the state, and it is directly responsible for investment in this area, as well as development. The formation of tourism infrastructure substantially contributes to increasing the complexity of the tourism phenomenon, which affects the increase in functional complexity and territorial, destination, competitiveness (Lovelock, 2013).

Today, enhancing the construction of tourism infrastructure concerns a large number of countries, wishing to achieve higher tourism results and its significant impact on economic development. Generating the effects of the overall development is conditioned by the way of managing the relationship between tourism infrastructure, tourism, and the local economy (Swyngedouw, 2000). It follows, then, that both the state and public enterprises, and the private sector are responsible for the quality of infrastructure. Planning the sustainable development of tourism infrastructure in line with this requires overall development of basic infrastructure and facilities, along with all tourism facilities in a balanced way.

Smith (1994) points out that the level of development and functional use of tourism infrastructure and lack thereof in the vicinity of tourist destination and in it are obstacles that can really affect the experience and satisfaction of tourists in respect of a certain tourist destination (Smith, 1994). After a visit to a tourism destination, tourism infrastructure has an important role in the tourist's overall experience and impression regarding a specific destination. General infrastructure of the destination and services provided represent one of the most important factors of overall tourism development.

III. EXPLORING THE CORRELATION BETWEEN PILLAR – TOURISM INFRASTRUCTURE AND TRAVEL&TOURISM COMPETITIVENESS INDEX IN THE COUNTRIES OF SOUTHEAST EUROPE

Investment is an essential component of the more competitive and faster development of tourism infrastructure, products, and services of a tourist destination. Destinations, with their dynamic environment, in terms of permanent changes, aimed at improving the current situation, require investment, so that improvement could be possible. Investment primarily relates to the inclusion of new achievements, in terms of improving tourism products, services, and facilities, needed so that destination could preserve the achieved level of competitiveness, or even increase it. Investment in tourism infrastructure can be generated by state investment, private investment of business owners who want to develop their business, or by new foreign investors, willing to invest in expansive progress of a tourist destination.

In some countries of Southeast Europe, ministries of tourism took a serious initiative in terms of promoting the progress of tourism infrastructure, recognizing its great importance for strengthening the competitiveness of the tourism sector. Thus, *Croatia* announced a public call for grants for improving the existing public tourism infrastructure and the preservation of tourism resources, primarily referring to tourist attractions that have a substantial share in attracting domestic and foreign tourists. The funds are intended for the

development of beaches, museums, and theme parks, which will strengthen the attractiveness of a tourist destination, and, in the long term, tourism competitiveness of the country. *Bosnia and Herzegovina* identified tourism infrastructure, characterized by low investment, as a major problem in the development of tourism. Some foreign investment in this area is not properly used, and poor road infrastructure greatly hinders the development, which reduces revenues from this sector over the years. The government is faced with the task to come up with new development projects to attract tourists, and, to attract foreign investors, it needs to offer quality investment projects. The novelty in the field of tourism in *Serbia* is a public call for tourism infrastructure development projects, totaling 450 million dinars, or more than 3.7 million euros (Ministry of Trade, Tourism, and Telecommunications of the Republic of Serbia, 2015). The current investment in *Macedonia* is investment in the transport infrastructure and reconstruction of two airports, worth 87 million euros, planned to be realized by 2018. Improvement of tourism infrastructure (new facilities, ski lifts, culture and sport, golf courses, water parks, events, occasions, etc.) in *Montenegro* has been carried out over the past decade, with the aim to become one of the world's most popular tourist destinations. These countries have numerous structural funds of the European Union available, aimed at financing three groups of tourism projects: public tourism infrastructure, business tourism infrastructure, and human potentials in tourism.

In accordance with the subject of this paper, to draw attention to the competitiveness of tourism infrastructure of the SEE countries, the Travel and Tourism Competitiveness Index (TTCI) will be analyzed, particularly the pillar which closely assesses the competitiveness of the tourism infrastructure in each country. The analysis will focus on the World Economic Forum reports in conjunction with the TTCI, covering the interval from 2007 to 2013, following the trend of the pillar - *tourism infrastructure* for the countries of Southeast Europe. The TTCI structure consists of three subindices, namely: 1) *regulatory framework of travel and tourism*, 2) *business environment and infrastructure*, and 3) *human, cultural, and natural resources*. The subindex - *business environment and infrastructure*, which looks at the overall business environment and economic infrastructure of each country, covers the pillar - *tourism infrastructure*. The constituent components of this pillar are: the number of hotel rooms (accommodation infrastructure), the availability of automated teller machines - ATM devices (financial infrastructure), and the number of car rental companies. Table 1 shows the level of competitiveness of the countries of Southeast Europe in the period from 2007 to 2013, according to the TTCI, while Table 2 presents the achieved level of competitiveness of tourism infrastructure in the same group of countries.

Table 1. Level of competitiveness of the countries of Southeast Europe, based on the TTCI, 2007 – 2013

Country	Travel and Tourism Competitiveness Index (TTCI)									
	2007		2008		2009		2011		2013	
	Score/Rank (124)	Score/Rank (124)	Score/Rank (130)	Score/Rank (130)	Score/Rank (133)	Score/Rank (133)	Score/Rank (139)	Score/Rank (139)	Score/Rank (140)	Score/Rank (140)
Albania	3,75	90	3,60	92	3,68	90	4,01	70	3,97	77
Bosnia and Herzegovina	3,51	104	3,45	105	3,44	107	3,63	97	3,78	90
Bulgaria	4,31	54	4,36	43	4,30	50	4,39	48	4,38	50
Croatia	4,66	38	4,59	34	4,54	34	4,61	34	4,59	35
Hungary	4,61	40	4,60	33	4,45	38	4,54	38	4,51	39
Macedonia, FYR	3,81	83	3,68	83	3,81	80	3,96	76	3,98	75
Montenegro	-	-	4,15	59	4,29	52	4,56	36	4,50	40
Romania	3,91	76	3,88	69	4,04	66	4,17	63	4,04	68
Serbia	4,18	61	3,76	78	3,71	88	3,85	82	3,78	89
Slovenia	4,58	44	4,49	36	4,53	35	4,64	33	4,58	36

Source: World Economic Forum, The Travel & Tourism Competitiveness Report, 2007- 2013

In 2013, the highest level of tourism competitiveness within the countries of Southeast Europe was recorded by Croatia, Slovenia, and Hungary, while the lowest ranked countries, in respect of this parameter, were Albania, Serbia, and Bosnia and Herzegovina. While Albania, Bosnia and Herzegovina, and Macedonia recorded the improvement of tourism competitiveness, Serbia was the only country in the region that recorded decline in tourism competitiveness in the period 2007-2013.

Table 2. The achieved level of competitiveness of the pillar – tourism infrastructure of the countries of Southeast Europe, 2007 – 2013

Country	Tourism infrastructure									
	2007		2008		2009		2011		2013	
	Score/Rank (124)	Score/Rank (124)	Score/Rank (130)	Score/Rank (130)	Score/Rank (133)	Score/Rank (133)	Score/Rank (139)	Score/Rank (139)	Score/Rank (140)	Score/Rank (140)
Albania	2,40	76	2,53	86	2,17	85	3,35	77	3,67	76
Bosnia and Herzegovina	3,27	56	3,61	59	3,66	57	4,12	62	4,24	65
Bulgaria	4,40	25	5,42	22	5,84	18	6,82	6	6,72	4
Croatia	5,73	11	6,63	10	6,64	6	6,96	4	6,71	5
Hungary	4,15	34	4,89	27	4,88	27	5,15	30	5,20	30
Macedonia, FYR	3,10	63	3,55	61	3,44	63	3,82	69	4,27	64
Montenegro	-	-	4,81	31	3,37	64	5,67	25	5,89	19
Romania	3,55	50	4,42	38	4,46	34	4,99	38	5,07	34
Serbia	3,34	54	3,91	52	3,53	58	4,51	49	4,47	56
Slovenia	5,22	20	5,93	20	6,01	16	6,27	17	6,27	14

Source: World Economic Forum, The Travel & Tourism Competitiveness Report, 2007- 2013

Regarding the competitiveness of tourism infrastructure in the SEE countries, in the period 2007-2013, Bulgaria, Croatia, Montenegro, and Slovenia improved their position at the global level, while Bosnia and Herzegovina, Macedonia, and Serbia recorded a decline in the competitiveness of tourism infrastructure.

Statistical technique for exploring the relationship between variables - correlation, was used to examine the relationship between: 1. TTCI and subindex – business environment and infrastructure; 2. TTCI and the pillar – tourism infrastructure; 3. subindex – business environment and infrastructure and the pillar – tourism infrastructure

Table 3. Pearson correlation coefficient between the TTCI and the pillar - tourism infrastructure and the Subindex - Business environment and infrastructure and pillar - tourism infrastructure for the countries of Southeast Europe in the period 2007 – 2013

	2007	2008	2009	2011	2013
TTCI –tourism infrastructure pillar	0,824 (0.003)	0,887 (0.001)	0,780 (0.008)	0,790 (0.007)	0,839 (0.002)
Business environment and infrastructure subindex – tourism infrastructure pillar	0,966 (0.000)	0,928 (0.001)	0,917 (0.002)	0,899 (0.001)	0,919 (0.000)

Source: Authors' presentation

The value of the Pearson coefficient for the TTCI and the subindex – business environment and infrastructure in the analyzed period points to the fact that there is a strong positive correlation, with the correlation coefficient statistically significant for each observed year. The value of the correlation coefficient is above 0.9 during the years. Spearman's rank correlation coefficient indicates the values approximate to the Pearson correlation coefficient. The highest rank compliance is recorded in 2009, and the lowest in 2011.

The direction of correlation of the TTCI and the pillar – tourism infrastructure is positive, with moderately strong to strong correlation, judging by the entire time interval. The high degree of quantitative agreement is recorded in 2008, while Pearson correlation coefficient records oscillatory movement during the years in the interval from 0.78 to 0.88. According to the Spearman's rank coefficient, in respect of the selected variables, the best compliance is recorded among the ranks in 2008, and the lowest in the coming year analyzed.

Direct, extremely strong, correlation is present during all the years among the analyzed variables (subindex – business environment and infrastructure and the pillar – tourism infrastructure). Ranking the values of the Spearman's correlation coefficient for that Business environment and infrastructure subindex and the Tourism infrastructure pillar points to the fact that the highest rank is present in 2007, after which the value of the coefficient slightly decreases, which indicates the lower ranks in the coming years.

Multiple regression analysis was used to examine the impact of the values of the pillar components on its very value. During all the years analyzed in the work, the value of determination coefficient indicates that the model is statistically representative. Multiple regression analysis, judging by all the years, shows that a unit increase in the number of hotel rooms per 100 residents of one country affects the increase in the value of the pillar – tourism infrastructure in the range from 0.56 to up to 1.2, depending on the observed year. Availability of ATMs that accept Visa credit cards, observed at 1 million people, at unit increase, causes an increase in the value of the pillar – tourism infrastructure by about 0.3. A number of major car rental companies is another component of the pillar – tourism infrastructure, where the unit increase of this component leads to an increase in the tourism infrastructure pillar in the range of 0.12 to 0.49.

The biggest impact on the value of the pillar – tourism infrastructure is exerted by the component a number of hotel rooms, which, from year to year, constantly increases in most Southeast European countries,

with the most hotel rooms per 100 inhabitants recorded in Croatia. Based on the data taken for the analysis, it can be noted that the number of car rental companies in all surveyed countries is very high. The increase in the number of ATMs is most pronounced in this group of countries, where the change percentage (2007 - 2013) is, in Macedonia, for example, nearly 93.5%. Under this component of the pillar – *tourism infrastructure*, countries are differently ranked, but none of them has the low ranking. Slovenia is in the lead, which, in 2013, was ranked eighth in the world.

IV. CONCLUSION

For successful tourism development, the need for more intensive investment in modernization of infrastructure is increasingly appearing as a necessary condition. Higher level of tourism infrastructure development can contribute to increased efficiency of production and distribution of tourism services, and, in some cases, such as remote destinations, increased supply of tourism services. For the existence on the tourism market, which is becoming more dynamic and demanding, the question of improving competitiveness becomes crucial. In this regard, investment in the development of tourism infrastructure is becoming an important component of tourism competitiveness.

The level of tourism competitiveness within the countries of Southeast Europe shows that Croatia, Slovenia, and Hungary have the highest rank, while Albania, Bosnia and Herzegovina, and Macedonia record improvement of tourism competitiveness. Serbia is the only country in the region that recorded decline in tourism competitiveness in the reporting period from 2007- 2013.

Regarding the competitiveness of tourism infrastructure of the SEE countries, in the period 2007-2013, Bulgaria (4th place in the world in 2013), Croatia (5th in the world in 2013), Montenegro, and Slovenia improved their positions globally, while Bosnia and Herzegovina, Macedonia, and Serbia recorded a decline of tourism infrastructure competitiveness.

Based on the study of correlation strength and direction of agreement between the TTCI and the pillar – *tourism infrastructure* in the paper, it can be concluded that between these two parameters there is a high level of agreement in this period. It was found that the greatest impact on the growth of the value of the pillar – *tourism infrastructure* is exerted by the component – *the number of hotel rooms*, which, from year to year, constantly increased in most Southeast European countries.

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