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***SUSTAINABLE AGRICULTURE AND RURAL  
DEVELOPMENT IN TERMS OF THE REPUBLIC  
OF SERBIA STRATEGIC GOALS REALIZATION  
WITHIN THE DANUBE REGION***

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# THE IMPACT OF HUMAN RESOURCES IN HOTELS ON THE COMPETITIVENESS AND SUSTAINABILITY OF DONJE PODUNAVLJE AS TOURISM DESTINATION

*Snežana Milićević<sup>1</sup>, Jelena Petrović<sup>2</sup>*

## Abstract

*Hotels as the important part of tourism industry represents labour-intensive sector. The purpose of this paper is to indicate the most important human resources to achieve competition and sustainability of Donje Podunavlje as tourism destination. The study relies on comparative analysis, correlation analysis, and regression analysis. Based on model of Ritchie and Crouch and model of Dwyer and Kim, the survey was made with aim to analyse the competitiveness of Donje Podunavlje as tourism destination. The paper comprises the following segments: a) analysing the competitiveness of Donje Podunavlje as tourism destination; b) analysing the economic aspects of sustainability of Donje Podunavlje as tourism destination; c) testing correlation between the competitiveness and sustainability of observed destination; b) analysing the impact of human resources in hotels on tourism competition of Donje Podunavlje.*

**Key words:** *human resources, hotels, competitiveness, sustainability, tourism destination, Donje Podunavlje.*

## Introduction

Donje Podunavlje is tourism destination with the high concentration natural and antropogenical tourism resources with different degree of protection, sustainability and valorisation. This destination has the rich cultural and historical heritage that can be base for the tourism development. But, it is necessary to indicate the existence of barriers to the tourism development. First of all, it refers to the poor connection of the destination with the other parts of country as well as to the

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transit traffic, which is done through the National Park. From the economic point of view, disadvantages are: low level of economic development, high unemployment, depopulation and unfavourable structure of the population.

The tourism destination Donje Podunavlje includes the following five municipalities of Eastern Serbia: Veliko Gradište, Golubac, Majdanpek, Kladovo and Negotin. In the paper, special attention will be dedicated to the analysis of the tourist offer and tourism demand of each municipality, ie analysis of natural and anthropogenic tourist potentials and analysis of accommodation capacities as well as tourist traffic.

Starting from the tourist traffic, the analysis of the economic aspects of tourism sustainability will be carried out, with special attention being paid to the analysis of Average length of stay of tourists in observed destinations, ie in Veliko Gradište, Golubac, Majdanpek, Kladovo and Negotin. The Average length of stay of tourists represents one of indicator of Economic Value Core Indicators. The system of indicators of tourism destination sustainable development proposed by the European Commission (European Commission, 2013) includes the following sets of indicators: Destinations Management, Economic Value, Social and Cultural Impact and Environmental Impact. All these sets of indicators can be divided into the Core and Optional Indicators. The Economic Value Core Indicators include the following indicators: Number of tourist nights per month, Average length of stay of tourists (nights), Occupancy rate in accommodation (average for the year), and Direct tourism employment as percentage of total employment, Percentage of tourism enterprises inspected for fire safety in the last year and Percentage of tourism enterprises actively taking steps to source local, sustainable and fair trade goods and services. Based on the results of the questionnaire, the analysis of the competitiveness of the observed destinations and the impact of human resources in hotels on destination competitiveness will be carried out. At the same time, special attention will be dedicated to the analysis of the interdependence between the sustainability and competitiveness of the observed destinations.

### **Literature review**

The main objective of each tourism destination is to achieve long-term competitive advantage on the tourism market (Ritchie, Crouch, 2000). The competitiveness of tourism destinations is linked to their capability to deliver tourist experiences that bring greater satisfaction to tourists compared to competitive

destinations (Vengesai, 2003). New experiences become a main motive for a decision on tourism travel (Milićević, Petrović, 2017). In other words, to be competitive, tourism destination has to offer to the tourism market a greater value than its competitors (Petrović, Milićević, 2015). According to Buhalis (2000), destinations are amalgams of tourism products and services, offering an integrated experience to consumers. However, to be competitive, a destination's tourism development must be economically, ecologically, socially, culturally and politically sustainable (Ritchie, Crouch, 2000).

There are several models of tourism destination competitiveness: Ritchie and Crouch (1993, 2000, 2003), De Keyser and Vanhove (1994), Chon and Mayer (1995), Hassan (2000), Heath (2002), Dwyer and Kim (2003), Gooroochurn and Sugiyarto (2005), etc. Certainly, in the literature special attention was paid to the Crouch and Ritchie (1993, 2000, 2003) Conceptual model of destination competitiveness, Integrated model of destination competitiveness by Dwyer and Kim (2003), and Model for measuring the competitiveness of tourism destinations that was developed by the World Economic Forum (WEF) (Petrović, Milićević, 2015).

Crouch and Ritchie Conceptual model of destination competitiveness comprises five main groups of factors: Supporting Factors and Resources; Core Resources and Attractors; Destination Management; Destination Policy, Planning and Development; and Qualifying and Amplifying Determinants. Each of these groups contains different attributes of destination competitiveness. In total, the model identifies 36 destination competitiveness attributes (Crouch, 2011).

Integrated model of destination competitiveness by Dwyer and Kim comprises six main groups of factors: Endowed Resources; Created Resources (the Resources category is divided into two types: Endowed and Created); Supporting Resources; Situational Conditions; Destination Management; Demand Conditions (Dwyer, Kim, 2003). This model explicitly recognises demand conditions as an important determinant of destination competitiveness (Petrović et al., 2017).

For the purpose of determining and comparing the competitiveness of the countries as tourism destinations, the WEF made the Travel & Tourism Competitiveness Index (TTCI). The TTCI measures four broad factors of competitiveness. These factors are organized into sub-indexes (Enabling Environment; T&T Policy and Enabling Conditions; Infrastructure; Natural and Cultural Resources),



which are further divided into 14 pillars. The aim of the TTCI, which covers 136 economies in 2017, is to provide a comprehensive strategic tool for measuring the set of factors and policies that enable the sustainable development of the travel & tourism sector, which in turn, contributes to the development and competitiveness of a country (WEF, The Travel & Tourism Competitiveness Report 2017).

Based on model of Crouch and Ritchie (1993, 2000, and 2003) and model of Dwyer and Kim (2003), the questionnaire was made with aim to quantify and analyse the competitiveness of Donje Podunavlje as tourism destination.

Hotels and other subjects in tourism „tend to be labour intensive“ (Hayes, Nienmeier, 2009:5) because only employees can provide the service quality that tourists and guests expect. Employees and their continuous education, development and training represent important factors of achieving and maintaining the competitiveness in tourism (Bakić, 2002). „Request for better-qualified human resources is a key requirement for improving the destination competitiveness“ (Janković Milić et al., 2011:444). Although, „the human resources are the source of competitiveness“ (Bulatović et al., 2016:145), insufficient attention is paid to human resources as a factor of destination competitiveness in the literature.

The hypotheses to be tested in this study are the following:

*H1: There is correlation between the average length of stay of tourists and the destination competitiveness;*

*H2: There is the statistical significant impact of human resources in hotels on destination competitiveness.*

Bearing in mind that the average length of stay of tourists records the decrease in all municipalities of Donje Podunavlje in period from 2000 to 2016 in the paper special attention is paid to the analysis the independence between the average length of stay of tourists and tourism competitiveness. The paper examines whether increasing competitiveness of observed destination would contribute to the average length of stay of tourists. Because the human resources represent source of competitiveness (Bulatović et al., 2016:145), in the paper special attention is paid the analysis the influence the human resources in hotels to the destination competitiveness.

## **Analysis of tourist offer of Donje Podunavlje**

The Municipality of Veliko Gradište is located at the foothill of the Carpathians and Homolje Mountains, at the confluence of Pek in the Danube. It represents the “vestibule” of Đerdap and one of a large port on the Danube. Đerdap covers an area of 64,000 ha and it is located on the right bank of the Danube from Golubac to Karataš (near Kladovo) (Nešković, Savić, 2018).

The important elements of natural heritage of Veliko Gradište are: Danube River, Srebrno Lake, Gorica Hill, Labudovo Okno and Ada Čibuklija. The important elements of cultural heritage are: the old city charm, the Ram fortress, the Roman military fortress Lederata, the Roman city Pinkum and the sacred objects - the monastery Nimnik and the church of St. Anarchist Gavriilo.

Veliko Gradište has a share of 17,74% in total beds of Donje Podunavlje. The structure of accommodation consist three hotels, five apartments and nine villas (Tourism Organization Veliko Gradište).

The Golubac is located in the north-eastern part of Serbia and belongs to the Braničevo district. The Golubačka gorge is the most well-known geomorphological form in the Golubac and the first narrowing point on the Danube in the Đerdap gorge.

After the Golubac Gorge, the Danube River enters in the Ljubovska valley (12km) that excels in large area. The sides of the valley reach the height of 150m. Downstream the Ljubovska valley a short Gospođin vir gorge appears, with steep slopes, which reach the height of 550m featuring colossally above the Danube” (Stanković, 2002:39). The most important elements of cultural heritage in Golubac are: the medieval fortress Golubac, the Golubac town, the Čezava, the monastery Tuman, the church of St. Nikola and ethno museum.

Golubac has share a share 8,17% in total number of beds in Donje Podunavlje. It records the lowest share in the relation to the other municipalities of Donje Podunavlje. The accommodation capacities in Golubac consist of one hotel, one villa, five apartments and three guesthouses (Tourism Organization Golubac).

The municipality of Majdanpek is located in northeast Serbia along the Danube. It covers the southern parts of the hilly and mountainous area of the Carpathi-

an wreath. The territory of Majdanpek is predominantly mountainous, where the most significant forms of mountain relief are: Miroč, Šomrda, Deli Jovan, Veliki krš, Mali krš, and the mountain Starica. In the territory of the Majdanpek stand out: the Đerdapska gorge, canyon Boltinjska Reka, the Gradašnica, the Rajkov cave, the cave Gradašnica on the slopes of Miroča (one of the deepest caves in Serbia), lake Veliki Zaton, lake of Kazan stream, Danilov vrelo, river Pek, Porečka river and Beli izvor. Biogeographical values are most represented in the zone of National Park “Đerdap”. It is divided into the three zones of protection. The first zone represents „the strict protection of natural and cultural heritage” (Macura et al., 2013:369). The second zone covers the area surrounding the first zone, while the third zone covers the area surrounding the first and second zone. In third zone is permitted the following activities: „tourism, sports, forestry, water use, potential exploitation of mineral resources, urban construction and development (Macura et al., 2013:369).” „Well-preserved eco-systems and landscape diversity provide possibilities for developing different forms of special interest tourism, as well as different types of sporting activities” (Popović et al., 2012:49).

The Djerdap gorge on the territory of Majdanpek is considered to be the most beautiful valley of the Danube because it includes the Donji Milanovac valley and Veliki Kazan canyon. Veliki Kazan (12 km) excels with its rocky sides that reach height of 300m (Stanković, 2002:39).

„Miroč Mountain, Veliki and Mali Srbac, the Danube River, the Djerdap Gorge, Veliki and Mali Kazan are the real place of world permeation both on land and in the water” (Valjarević et al., 2015:99). Mountain Miroč is located in the Djerdap National Park and it is surrounded by the Danube from all the sides. The highest peak of Miroc is Veliki Strbac, while Mali Strbac is the second highest peak.

The most important elements of cultural heritage in Majdanpek are the following: the archaeological locality “Lepenski vir”, the archaeological locality “Stara Topionica”, the locality “Okno”, the ski centre “Rajkovo”, the Tenkina house, the church of Sv. Nikola and Church of St. Apostles Peter and Paul. The significant events attracted by tourists are “Women painters”, “Village sports Olympiad”, exhibitions “Majdan art” and many others.

Majdanpek has share a share 24,47% in total number of beds in Donje Podunavlje. It records the second place in the relation to the other municipalities of Donje Podunavlje. Its accommodation structure is consisting by two hotels and one guest-house (Tourism Organization Majdanpek).

The cultural and historical monuments and archaeological sites in Majdanpek are Trajan's Bridge, Trajan's Table, Fetislam Fortress, Roman settlement - "Egeta", Haiduk's Mill and Etnopark, Archaeological museum "Djerdap".

Kladovo is located in the north-eastern part of Serbia, at the foothill of mountain Miroč in the Ključ area. The most important natural resources of Kladovo are Dunav and Djerdap gorge. The most attractive part of the Đerdap gorge in the territory of Kladovo is Veliki and Mali Kazan canyons. Mali Kazan represents the narrowest part of the Djerdap gorge, with only 180m wide (Stanković, 2002:39). Riparian area of Mali and Veliki Kazan is more difficult accessed by road than by the waterway (Stanković, 2002:39).

Kladovo has a dominant share with 37.98 % in total number of beds in Donje Podunavlje. Two hotels, ten apartments and two guesthouses are located in Kladovo (Tourism Organization Kladovo).

Negotin is located in eastern Serbia on the border of the Republic of Serbia, the Republic of Bulgaria and the Federal Republic of Romania. It extends between the Danube and Timok flows to the north and east and the mountain Deli Jovan and the Great Reef on the west.

The most important elements of natural heritage in Negotin are: mountains (Deli Jovan and Veliki Greben), rivers (Vratna, Zamna, Dunav and Timok), caves (Resava cave and Duduć cave) and nature reserve "Bukovo". The centre of the Negotin is a protected cultural heritage. It includes the birthplace of Stevan Mokranjac, the museum of Haiduk Veljko with a gallery and the building of the Pedagogical Academy from the XIX century.

"Negotinske pivnice" represent an ethnological complex of wine cellars, built in the late XVIII and early XIX centuries in the village of Rajac, Rogljevo, Smedovac and Štubik. They were built in the period when Negotin was known for wine export to France, Germany, Austria and Russia.

Negotin has a share with 11.63 % in total number of beds in Donje Podunavlje. The accommodation services are provided by one hotel, one hostel, three villas and three lodgings (Tourism Organization Negotin).

The observed destinations have favourable natural and cultural heritages for the tourism development. At the same time, it is necessary to point out that they have hotels and other facilities for tourist accommodation.

### **Analysis of tourist traffic and economic aspect of sustainability of Donje Podunavlje**

Donje Podunavlje records the increase number of tourists and the decrease of number of tourist nights in the period from 2000 to 2016 (Table 1 and Table 2). All observed municipalities of Donje Podunavlje except Golubac and Majdanpek record the increase of number of tourist in the period from 2000 to 2016.

**Table 1.** *Tourists in Donje Podunavlje in period from 2000 to 2016 (in index)*

<b>Municipality</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2016</b>
Veliko Gradište	100.00	160.50	149.45	289.50	289.50
Golubac	100.00	89.28	88.23	52.81	52.81
Majdanpek	100.00	100.58	86.83	82.80	82.80
Kladovo	100.00	93.39	123.03	103.33	103.33
Negotin	100.00	172.62	140.82	154.67	154.67
Donje Podunavlje	100.00	105.64	107.75	108.98	108.98

**Source:** *Statistical Office the Republic of Serbia, [www.stat.gov.rs/en-us/publikacije/](http://www.stat.gov.rs/en-us/publikacije/)*

Veliko Gradište records the increase of tourist nights from 2000 to 2005 and from 2010 to 2015. Golubac, Majdanpek, Kladovo and Negotin record the decrease of tourist nights in period from 2000 to 2016.

**Table 2.** *Tourist nights in Donje Podunavlje in period from 2000-2016 (in index)*

<b>Municipality</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2016</b>
Veliko Gradište	100.00	118.70	67.08	188.41	63.77
Golubac	100.00	74.91	79.97	45.04	31.61
Majdanpek	100.00	69.55	60.02	43.43	24.32
Kladovo	100.00	81.59	125.48	73.35	37.49
Negotin	100.00	63.02	72.69	94.10	33.31
Donje Podunavlje	100.00	79.22	82.71	74.27	34.24

**Source:** *Statistical Office the Republic of Serbia, [www.stat.gov.rs/en-us/publikacije/](http://www.stat.gov.rs/en-us/publikacije/)*

All observed municipalities of Donje Podunavlje record the decrease of average length of stay of tourists in the period from 2000 to 2016. Majdanpek records the highest decrease of average length of stay of tourists while Golubac records the lowest decrease of average length of stay of tourist in the period from 2000 to 2016.

**Table 3.** *Average length of stay of tourists in Donje Podunavlje in period from 2000 to 2016 (in index)*

Municipality	2000	2005	2010	2015	2016
Veliko Gradište	100.00	74.01	66.96	64.98	64.98
Golubac	100.00	83.83	113.17	85.03	85.03
Majdanpek	100.00	69.12	115.29	52.65	52.65
Kladovo	100.00	80.80	81.16	71.01	71.01
Negotin	100.00	36.64	71.12	60.78	60.78
Donje Podunavlje	100.00	73.27	92.77	68.24	68.24

**Source:** *Statistical Office the Republic of Serbia, [www.stat.gov.rs/en-us/publikacije/](http://www.stat.gov.rs/en-us/publikacije/)*

### Research methodology

The survey was conducted in hotels that are located in the Donje Podunavlje (Veliko Gradište, Golubac, Majdanpek, Kladovo and Negotin). 1000 guests were surveyed. After elimination of questionnaires with incomplete answers, we got a useful sample of 992 questionnaires.

**Table 4.** *Respondents profiles*

Attributes/distribution	Sample number	Frequency (%)
<i>Gender</i>		
Male	532	53.63
Female	460	46.37
<i>Age</i>		
18 or younger	52	5.24
19-29	259	26.11
30-39	205	20.67
40-49	223	22.48
50-59	98	9.88
60 or older	155	15.63
<i>Education</i>		

Attributes/distribution	Sample number	Frequency (%)
Primary	32	3.23
Secondary	336	33.87
College	249	25.10
Faculty	214	21.57
Doctorate	163	16.43

**Source:** *Prepared by the authors.*

Guests are respondents rated the main competitiveness factors with a score from 1 to 5 from the standpoint of the competitiveness of Veliko Gradište, Golubac, Majdanpek, Kladovo and Negotin as tourism destinations. Starting from the average score of the main competitiveness factors, the tourism competitiveness of observed destinations are quantified.

Starting from the main competitiveness factors, it can be concluded that the nature resources of Kladovo recorded by the highest score in relation to other observed factors. The cultural and historical heritage in Negotin recorded by lowest score whiles the cultural and historical heritage in Majdanpek recorded by the highest score. Image of Golubovac recorded by the lowest score, followed by tourism offer i.e. hotels offer. The main problems of competitiveness of observed tourism destinations are: accessibility, infrastructure and price/value.

Majdanpek records the highest destination competitiveness while Negotin records the lowest destination competitiveness. According to destination competitiveness, Kladovo is found on the second place, after Majdanpek.

**Table 5.** *Tourist perception of main competitiveness factors of Donje Podunavlje*

Main competitive-ness factors	Veliko Gradište	Golubovac	Majdanpek	Kladovo	Negotin
1. Nature resource	3.80	3.74	3.68	4.50	2.78
2. Cultural and historical heritage	3.24	4.14	4.32	3.90	2.84
3. Special events	3.32	2.96	3.98	4.12	3.22
4. Entertainment	3.04	3.68	4.3	3.72	4.16
5. Accessibility	3.16	2.96	3.52	3.04	3.22
6. Infrastructure	3.10	3.04	2.90	3.70	2.34
7. Price/value	3.46	3.42	3.86	3.10	3.36

Main competitiveness factors	Veliko Gradište	Golubovac	Majdanpek	Kladovo	Negotin
8. Safety/security	4.52	4.44	3.54	4.32	4.14
9. Image	2.00	1.68	4.48	3.52	2.20
10. Hotels	4.42	1.94	4.04	3.72	2.46
11. Human resources in hotels	3.42	3.54	3.64	3.84	4.02
12. Services quality	3.42	2.86	2.84	3.00	2.96
13. Tourism competitiveness	3.41	3.20	3.76	3.71	3.14

**Source:** Prepared by the authors (SPSS Statistics 19).

Correlation between the economic aspect of tourism sustainability and tourism competitiveness in the observed destinations was tested by calculating the Pearson correlation coefficient between the average length of stay of tourists and the level of tourism competitiveness. Results of the correlation analysis are shown in Table 6.

Based on the results of correlation analysis, it can be concluded that there is no significant correlation between the average length of stay of tourists and tourism competitiveness, since the value of Sig. is greater than 0.05. Based on the results of correlation analysis, it can be concluded that the first hypothesis has not been confirmed because the increase of tourism competitiveness of observed destination does not contribute the increase of average length of stay of tourists.

**Table 6.** Pearson's correlation coefficient - the interdependence between the average length of stay of tourists, tourism competitiveness and human resources in hotels

		Average length of stay of tourists	Tourism competitiveness	Human resources in hotels
Average length of stay of tourists	Pearson Correlation	1	-.286	.162
	Sig. (2-tailed)		.641	.794
	N	5	5	5
Tourism competitiveness	Pearson Correlation	-.286	1	-.112
	Sig. (2-tailed)	.641		.858
	N	5	5	5



		Average length of stay of tourists	Tourism competitiveness	Human resources in hotels
Human resources in hotels	Pearson Correlation	.162	-.112	1
	Sig. (2-tailed)	.794	.858	
	N	5	5	5

**Source:** Prepared by the authors (SPSS Statistics 19).

**Table 7.** The value of regression coefficients – the impact of human resources in hotels on destination competitiveness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig.
1	.112 <sup>a</sup>	.012	-.317	.32643	.858

**Source:** Prepared by the authors (SPSS Statistics 19).

a. Predictors: (Constant), Human resources in hotels

b. Dependent Variable: Tourism competitiveness

Based on the results of the regression method, one can conclude that the human resources in hotels have not a significant impact on the competitiveness of the municipalities of Donje Podunavlje. Based on the results of regression analysis, it can be concluded that the second hypothesis has not been confirmed because the human resources in hotels is one of the most important factors of destination competitiveness.

## Conclusion

The paper has paid special attention to the analysis of competitiveness of the municipalities of Donje Podunavlje as tourism destinations. A compare analysis of foreign tourists, foreign tourist nights and destination competitiveness has led to the conclusion that Majdanpek is the leader both in terms of the tourism traffic and in the field of competitiveness as tourism destinations. Kladovo records the highest total and domestic number of tourists while Veliko Gradiste records the highest total and domestic night of tourists in 2016. All municipalities of Donje Podunavlje record the decrease of average length of stay of tourists in period from 2000 to 2016. Correlation analysis between the average length of stay of tourists and competitiveness of the observed tourist destinations has indicated that there is no significant independence between observed variables.

The natural resources and cultural and historical heritage are not enough that one municipality or town become an attractive and competitive tourism destination. First of all, investments are needed, in infrastructure and tourism superstructure. Second, it is necessary to create and implement marketing strategy and promotion strategy with the aim to development the image of Donje Podunavlje and its municipalities.

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