Часопис из области економије, менаџмента и информатике
БизИнфо (БЛАЦЕ)
www.bizinfo.edu.rs
Journal of Economics, Management and Informatics
BizInfo (BLACE)

The role of cycling tourism in the function of sustainable development of Arilje

Uloga biciklističkog turizma u funkciji održivog razvoja Arilja

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Article info

Review paper/ Pregledni rad

Received/ Rukopis je primljen:
18 January, 2024
Revised/ Korigovan:
17 June, 2024
Accepted/ Prihvaćen:
15 August, 2024

DOI:
After publishing in regular number

UDC/ UDK:
338.484:502.131.1]:796.61(497.11Arilje)

Scheduled release in the Vol. 15, No. 2

Abstract

Tourism based on sports activities and sustainable lifestyle is widely spread and popular today. Cycling, as a form of sports and eco-tourism, unites these two types of tourism and makes a meaningful tourist offer, improves the living conditions of the local community and creates a brand of a certain destination. The paper presents the bicycle route of the municipality of Arilje, which combines the most important natural and anthropogenic resources. The impact that cycling has on the destination itself and the local community, limiting factors of success, opportunities for improving the tourist offer and its promotion in the area of the municipality of Arilje were discussed. 289 local residents of Arilje participated in the research, and with adequate statistical methods, it was concluded that cycling tourism has direct impact on positive aspects of economic indicators of sustainable development of the destination.

Keywords**:** *cycling, sustainable tourism, municipality of Arilje, Western Serbia*

Sažetak

Turizam koji se zasniva na sportskim aktivnostima i održivom načinu života danas je široko rasprostranjen i popularan. Biciklizam kao oblik sportskog ali i eko turizma objedinjuje ova dva vida turizma i čini sadržajnu turističku ponudu, poboljšava uslove života lokalne zajednice i kreira brend odredjene destinacije. U radu je prikazana biciklistička ruta opštine Arilje, koja objedinjuje najznačajnije prirodne i antrpogene resurse. Obradjen je uticaj koji biciklizam ima na samu destinaciju i lokalnu zajednicu, ograničavajuće faktore uspeha, mogućnosti unapredjenja turističke ponude i njene promocije na području opštine Arilje. U istraživanju je učestvovalo 289 lokalnog stanovništva Arilja, a adekvatnim statističkim metodama došlo se do zaključka da biciklistički turizam ima direktan uticaj na pozitivne aspekte ekonomskh indikatora održivog razvoja destinacije.

Ključne reči*: biciklizam, održivi turizam, opština Arilje, Zapadna Srbija*

1. Introduction

Modern tourists strive for an authentic experience and new and exciting ways of spending their free time. Destinations are trying to offer them such a product that will be both sustainable and attractive at the same time, product that benefits at the same time the local population, the tourist and the destination (Ilić et al., 2014). Bicycle tourism represents such a form of tourism, which meets all these criteria (Ayachi et al., 2015). According to Vujko et al. (2017) the bicycle is known as an ecological means of transport, which in every sense has a favorable effect on the environment and destinations, as well as on human health. Cycling represents one of the healthiest, ecological and adventurous ways of exploring and getting to know the natural beauties and cultural treasures of a destination (Fraser & Lock, 2011; Barajas & Braun, 2021).

An increasing number of people recognize the benefits of cycling and its positive impact on health (Bassett et al., 2008; De Hartog et al., 2010; Pekka et al., 2011; Bratman et al., 2012), the environment (Bedimo-Rung et al., 2005; Nikolić et al., 2019), sustainability (Wolch et al., 2014; Gössling et al., 2019) and economic development (Vujko & Gajić, 2014; Blondiau et al., 2016). Cycling tourism, as a market niche, can be very significant for the expansion of the tourist offer of both the municipality of Arilje and the whole of Serbia. Cycling can be very important for increasing the utilization of the existing capacities of catering establishments, restaurants, cafes, etc. and

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building new accommodation facilities adapted to the needs of participants of this type of tourism. However, in order to realize a certain potential, co-investments in cycling infrastructure are required which includes: construction of cycling paths and parking for bicycles, bicycle tours, appropriate signage, places for a break, info center, places for service and rental of bicycles, equipment shops for cyclists, hiring of bicycle guides and instructors and others (Handy et al., 2014). These infrastructural changes not only improve the experience of cyclists but also contribute to the overall tourist experience of the destination as well as attracting cyclists from different parts of the world, bringing economic benefits to the destination (Deenihan& Caulfield, 2014; Redžić, 2019).

Cyclotourism, i.e. bicycle tourism, has experienced an extraordinary rise in recent years, in Europe (Mertens et al., 2017; Mueller et al., 2018), as well as in our country (Vujko et al., 2013), in accordance with wishes, needs and habits of modern tourist who wants a new type of vacation: educational, adventurous and physically active, and which is based on the development of this form of selective tourism (Heesch et al., 2014). The modern tourist wants to spend his vacation actively, to participate in the life of the local community during his stay in the chosen tourist destination and to develop his own interests based on the authenticity of the destination (Maller et al., 2006). In the literature (Pucher& Buehler, 2008; Shaker et al., 2021), cyclotourism is defined as a recreational stay that includes an overnight or day visit with recreational cycling as an essential part of the stay in the destination. Cyclotourism meets the requirements of the current tourist orientation towards nostalgia, escaping from reality and returning to the past and enjoying untouched nature. The advantages of cycling are numerous: a bicycle is a completely ecological means of transport, it does not pollute the environment, it is powered by human power, which significantly improves its physical and motor systems, the costs of exploitation are much lower than motor vehicles, and numerous studies have shown that the life expectancy of people who drive bicycle much longer (Pucher et al., 2010a; Mulley et al., 2013). Research related to cycling routes has shown that their development at the local, regional or national level has a positive effect on the development of local, village and rural areas and contributes to the creation of new jobs and the expansion of the tourist offer (Vujko & Plavša, 2011), such as catering facilities for accommodation, bicycle servicing offer.

The paper started from the hypothesis H that cycling tourism, as a sustainable form of tourism, through its economic aspects of sustainable development, has a positive effect on strengthening the awareness of the local population about the importance of developing this form of tourism at the destination - Arilje. Cycling tourism was approached as a special form of tourism whose goal is the networking of natural and anthropogenic attractions as well as the development of the destination. Arilje (Serbia), is one of the places characterized by distinctive landscapes, clean air, rich history and authentic culture, and it offers a unique opportunity for exploring the natural beauty of mountains, rivers and villages, as well as enjoy local gastronomy and traditions. This directly contributes to the development of sustainable and authentic tourism. One of the goals of the work is the marking of bicycle paths in Arilje, with the task of showing the potential for the development of bicycle tourism as a sustainable form of tourism. The impact of cycling on the local community, tourism and sustainability will be presented. It will also look at the practical aspects of planning a cycling tour through Arilje, including preparation, safety and logistics. The ultimate goal is to encourage people to discover the tourist potential of Arilje in a sustainable and active way, at the same time promoting a healthy way of moving through the area using a bicycle and raising awareness of the importance of preserving natural and cultural heritage.

2. Methodology

The municipality of Arilje is located in the western part of the Republic of Serbia in the basin of the rivers Rzava and Moravica, next to the main road Požega-Ivanjica. It is an integral part of the Zlatibor District, and according to the configuration of the land, it belongs to a hilly-mountainous area with a narrow strip of plain around the Moravica River. The highest peak of the municipality is the mountain Kukutnica in the village of Bjeluša with an altitude of 1328 m. Since 1970, Arilje has been known for being the epicenter of the world's raspberry production, but it is also known for the production of other fruits, primarily plums and Budimka apples, and also potatoes, mushrooms, dairy products, cheese and cream. They are also known for farming fish in clean mountain rivers (brook trout and rainbow trout). Arilje is a town settlement and the seat of the municipality of the same name in the Zlatibor district. Among the tourist resources here are the river Rzav, Moravica, Panjica, Visočka spa, Water Cave, the church of St. Achilius, the Church of St. Ilia in Gradina, Klisura Monastery, the Church of the Holy Trinity in Bjeluša and the Church of St. Nicholas in Brekovo. For the purposes of this work, the technique of survey and field data collection was used. In the course of the field work, experts from the field of tourism were interviewed and with their help, relevant conclusions were reached regarding the development of cycling as a tourist product in the area of Arilje.

The survey was conducted in the territory of Arilje in the period from March 2023 to October 2023 and 289 respondents participated in it. The survey refers to the economic aspect of sustainable tourism and its impact on the population of Arilje. The variables related to how much cycling as a tourism product would affect the population's income, standard of living, productivity, new jobs, arts and crafts, as well as the promotion and improvement of the overall tourism of the municipality of Arilje. In order to assess the current and future state of sustainable tourism in the area of Arilje, a SWOT analysis was performed. Valorization of the selected area and its zoning were also done. Locating the locality, that is, zoning, was done by drawing and connecting the points on the map of the municipality of Arilje that mark the cycling route. It is through this merger that the bicycle route of the municipality of Arilje is obtained as a potential for the development and improvement of tourism

from the aspect of sustainable development. One of the procedures for analyzing the obtained data was the Pearson Chi-Square Test. This test was used to determine whether there is statistical significance in the respondents' answers in relation to the gender of the respondents. For the existence of statistical significance in relation to the sex of the respondent, it is assumed that p<=0.05.

The valorization analysis was done according to the quantitative-qualitative method with the basic elements of tourist valorization such as: accessibility of resources, tourist services and equipment, ambience, specificity of resources, importance of resources and artistic value. (Čomić & Pjevac, 1997). On the territory of the municipality of Arilje has been carried out a valorization of the following localities: Arilje Tourist Information Center, Church of the Holy Prophet Elijah, Klisura Monastery, Water Cave, Church of St. Nicholas, Church of the Holy Trinity, Visočka Spa, Urijak Beach, Bosa Noga Beach, Zuta Stena Beach, Serbian Orthodox church of St. Ahilija. Valorization was carried out by: Slavica Jovašević, informant at the tourist info center Arilje, Ivković Aleksandra, manager for marketing and development of the sports and tourist center Arilje and the author of the paper. The ratings, that is, the set elements of tourist valorization ranged from 1 to 5, and they represent the size of the contractive zone, actually the importance of the destination itself. The numbers have a certain meaning: 1-insufficient quality; 2- quality that satisfies local tourist importance; 3-good quality of resources with regional significance; 4-very good quality with wider regional (national) importance; 5-excellent quality of resources that has international importance. (Čomić & Pjevac, 1997).

3. Results and Discussion

The first part of the research includes the marking of the Arilje cycling route. The bicycle route through the municipality of Arilje, which will be covered in this paper, unites all its natural and cultural resources that make its tourist offer. The total length of the route is 92.2 km.

Route: Tourist info center Arilje-Church of the Holy Prophet Elijah-Monastery Klisura-Water Cave-Church of St. Nicholas-Church of the Holy Trinity-Visočka Spa-Uriak Beach-Bosa Noga Beach-Zuta Stena Beach-Serbian Orthodox Church of St. Ahilija.

The route starts in the very center of Arilje from the Tourist Information Center, then continues towards the south, after 8km from the Arilje Tourist Information Center, it turns right and after 2.5km of driving on a field road, reaches the foot of Gradina, where it continues continue with a narrow, steep path 500m long, which is possible pass only by foot. The Church of the Holy Prophet Elijah is at the very top of Gradina (about 660m above sea level) and it belongs to the Eparchy of Žica of Serbian Orthodox Church and is located on the rocky top of Gradina, above the Moravica gorge, between Prilica and Dobrača. 7 km from the Church of the Holy Prophet Elijah in the gorge of the Moravica River is the Klisura Monastery, which was built in the 13th century and is dedicated to the Holy Archangels Michael and Gabriel. After 14.4 km from Klisura Monastery through the village of Dobrače, you will reach the Water Cave. The cave is located in the Panjica river canyon and has not yet been fully explored. It is assumed that the water mass coming out of the cave is actually a sinkhole formed from several sources. Speleologists claim that deep in the cave halls, there is a lake. A path of about 1 km along the Panjica river leads to the cave itself, and directly in front of the cave there is an 8 m high waterfall. At 4.2 km from the Water Cave, right on the way to the Church of the Holy Trinity, there is the Church of Saint Nicholas in Brekovo, built at the end of the 16th and the beginning of the 17th century in the Byzantine style. After 10 km to the south, path reaches the Church of the Holy Trinity in Bjeluša, it was built in the 19th century wich to the Diocese of the Serbian Orthodox Church in Žica. 9.8 km from the Church of the Holy Trinity there is a Visočka spa located in the upper course of the Veliko Rzav canyon on the way to the village of Visoka. The water flows out of the underground lake, mixes with the river water and cools, which encourages the dissolution of minerals, and through the openings in the rock, in the form of bubbles, emerges to the surface. This type of canyon springs is considered a museum of natural thermal rarities and is the only one in Serbia and the former Yugoslavia. Hanging thermal baths, springs in the rocks, above the river bed are especially rare. The water temperature is 27 degrees and is suitable for treating rheumatism, heart problems, nervous diseases and improves vision. At 30 km from Visočka spa, along the course of the Rzav river with exceptionally clean water, there are the beaches Urjak, Bosa Noga, and Žuta stena, which offer entertainment, swimming, and sports activities. At 2.7 km from the beach Žuta stena is the Serbian Orthodox Church of Saint Achille. It is located on a hill in the center of Arilje and is the endowment of King Dragutin. The church was built at the end of the 13th century and dedicated to Bishop Achillios from the Greek city of Larissa.

Table 1. Age of respondents

		Number of respondents	Percentage
Valid	1-15	6	2.1
	16-25	26	9.0
	26-35	98	33.9
	36-45	96	33.2
	46-55	46	15.9
	56-65	10	3.5
	Over 66	7	2.4
	Total	289	100.0

Source: Author's calculation based on SPSS 21.0

The second part of the results includes the analysis of the survey research. The survey included 289 respondents (Table 1), of which the largest number (194 respondents) are between 26-45 years of age, a slightly smaller number (56 respondents) are from 46-65 years of age, 32 respondents under 25 years of age and only 7 respondents over 66 years of age.

Looking at Table 2, it can be concluded that out of 289 respondents, 155 respondents are male and 133 respondents are female.

Table 2. Gender of respondents

		Number of respondents	Percentage
Valid	Male	155	53,6
	Female	133	46,0
	Total	288	99,7
Missing	System	1	,3
Total		289	100.0

Source: Author's calculation based on SPSS 21.0

Looking at Table 3, we can conclude that a large number of respondents, as many as 245 of them, believe that the bicycle route in Arilje will contribute to a large increase in the income of residents.

Table 3. Income of respondents

		Respondents		Total
		Male	Female	
Revenues	No change	13	15	28
	Better	14	1	15
	Much better	128	117	245
Total		155	133	288

Source: Author's calculation based on SPSS 21.0

Also, the data from Table 4 show that there is a statistically significant difference in relation to the gender of the respondents, given that p=0.006. This data points the fact that the local population believes that the economic aspects of the development of cycling tourism would be visible and tangible (Pucher et al., 2010b).

Table 4. Pearson Chi-Square Test

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.283a	2	0.006

Source: Author's calculation based on SPSS 21.0

The development of cycling tourism would bring, judging by the results of the survey, changes in households that directly, positively change the living standard of the population (Table 5). The essence of tourism development is precisely that the local population is empowered through economic development, and at the same time that it is a form of tourism that is sustainable and has a positive effect on the environment.

The respondents' answers, which we can see in table 5, follow up on the answers from the previous table 3. The vast majority of respondents, as many as 239 of them, on the question related to the change in the standard of living answered that they believe that the bicycle route in Arilje will contribute to a great improvement in the standard of living. Likewise, the data from Table 6 show that there is statistical significance in relation to the gender of the respondents.

Table 5. Standard of living

		Respondents		Total
		Male	Female	
Standard of living	No change	5	10	15
	Better	32	2	34
	Much better	118	121	239
Total		155	133	288

Source: Author's calculation based on SPSS 21.0

Table 6. Pearson Chi-Square Test

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.650[a]	2	0.000

Source: Author's calculation based on SPSS 21.0

When asked about the respondents' opinion on the impact of cycling on productivity, we can conclude from Table 7 that the respondents believe that the impact is positive and that productivity will be much better. This primarily refers to tourist traffic, as well as the relations of those who would provide services to tourists.

The fact is that tourism directly affects the creation of many jobs (Table 9), therefore it is logical to conclude that due to the economic aspects of the development of tourism, the attitude of employees towards their working place would change significantly for the better. That is, productivity would grow proportionally. We can also conclude that there is no statistical significance, that is, that both men and women think equally about productivity.

Table 7. Productivity

		Respondents		Total
		Male	Female	
Productivity	No change	4	5	9
	Better	12	7	19
	Much better	139	121	260
Total		155	133	288

Source: Author's calculation based on SPSS 21.0

Table 8. Pearson Chi-Square Test

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.998[a]	2	0.607

Source: Author's calculation based on SPSS 21.0

Based on Table 9, we can conclude that the largest number of respondents believe that the development of cycling will have a positive effect on the creation of new jobs. This will give the local population the possibility of employment.

Table 10 also shows us that there is a statistically significant difference in relation to the gender of the respondents, given that p=0.017. Those jobs that are first opened due to the development of tourism in destinations are primarily related to direct relations with tourists. These are accommodation services and food and beverage services. Of course, this is an activity that has a multiplier effect on the economy (Nunkoo et al., 2019), so it is clear that there are also many other jobs in question, which are more or less directly related to tourism and tourist activity (Boley et al., 2018).

Table 9. Creation of new jobs

		Respondents		Total
		Male	Female	
Creation of new jobs	No change	7	7	14
	Better	12	1	13
	Much better	136	125	261
Total		155	133	288

Source: Author's calculation based on SPSS 21.0

Table 10. Pearson Chi-Square Test

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.138[a]	2	0.017

Source: Author's calculation based on SPSS 21.0

Looking at table 11, we come to the conclusion that the introduction of cycling into the tourist offer has a positive effect on the arts and crafts of the local population. The data from Table 12 indicate that there is a statistically significant difference in the respondents' answers in relation to the respondent's gender, given that p=0.000. Here, above all, women's empowerment and female entrepreneurship stand out (Vujko et al., 2018). Tourism, through handicrafts and various souvenirs and winter food, has a positive effect on the most delicate population, namely women in less developed areas, such as rural areas. An empowered woman has a positive influence on her family and the local community, and the development of tourism makes this possible.

Table 11. Arts and handicrafts

		Respondents		Total
		Male	Female	
Arts and crafts	No change	8	7	15
	Better	20	1	21
	Much better	127	125	252
Total		155	133	288

Source: Author's calculation based on SPSS 21.0

Table 12. Pearson Chi-Square Test

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.684[a]	2	0.000

Source: Author's calculation based on SPSS 21.0

A look at table 13 shows us that respondents in the largest number of cases, as many as 262 out of a total of 288 respondents, believe that cycling, as a new activity in the tourist offer of Arilje, will significantly affect the development of tourism in this destination. Table 14 also shows us that there is a statistically significant difference in relation to the gender of the respondents. Cycling should connect all natural and anthropogenic tourist attractions and thus contribute to the development of the destination (Buehler& Dill, 2015). The gastronomy of the region is particularly noteworthy, which is authentic and rich. A bicycle would enable the connection of the region's gastronomy with other tourist attractions, which would complete the experience and develop the destination.

Table 13. Tourism

		Respondents		Total
		Male	Female	
Tourism	No change	4	10	14
	Better	11	1	12
	Much better	140	122	262
Total		155	133	288

Source: Author's calculation based on SPSS 21.0

Table 14. Pearson Chi-Square Test

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.522[a]	2	0.005

Source: Author's calculation based on SPSS 21.0

The third part of the research was valorization using the qualitative-quantitative method as well as SWOT analysis. The goal was to identify the advantages and disadvantages of certain attractions in order to remediate those disadvantages. From table 15, it can be seen that the accessibility of resources for the needs of tourism in all the mentioned localities is excellent, except for the Church of the Holy Prophet Elijah and the Water Cave, which cannot be reached by car, but there exists a footpath. According to the evaluations in the table, it can be seen that the tourist equipment of the given localities is relatively satisfactory and should be raised to a higher level for the purpose of tourism development, in terms of the construction of additional catering facilities such as restaurants, guest accommodation facilities, specialized shops for the sale of traditional souvenirs and local specialties, opening of specialized shops and provision of services for cyclists, installation of tourist signage and preparation of space for tourist activities. The ratings from the table indicate that the environment is excellent, primarily due to the rich flora and fauna and natural resources of this region. Based on the scores from the resource specificity table in the municipality of Arilje, it can be concluded that all localities are very unique and that each has its own historical value and story that follows it through the centuries and that can be used for tourist purposes.

Table 15. Valorization by quantitative-qualitative method

Localities	Accessibility of resources	Tourist equipment	Ambience	Specificity of resources	Significance of resources	Artistic value	Average value
Church of the Holy Prophet Elijah	3	3	4	5	5	5	3.92
	2	1	5	5	5	4	
	2.5	2	4.5	5	5	4.5	
Klisura Monastery	5	5	5	5	5	5	4.83
	5	3	5	5	5	5	
	5	4	5	5	5	5	
Water Cave	4	4	5	5	5	1	3.83
	3	3	5	5	5	1	
	3.5	3.5	5	5	5	1	
Church of Saint Nicholas	5	5	5	5	5	5	4.75
	5	3	5	4	5	5	
	5	4	5	4.5	5	5	

Table 15. (continued)

Localities	Accessibility of resources	Tourist equipment	Ambience	Specificity of resources	Significance of resources	Artistic value	Average value
Church of the Holy Trinity	5	3	3	5	4	3	3.75
	5	2	4	4	4	3	
	5	2.5	3.5	4.5	4	3	
Visočka Spa	5	5	5	5	5	1	4.25
	5	4	5	5	5	1	
	5	4.5	5	5	5	1	
Urjak Beach	5	5	5	4	4	1	3.83
	5	4	5	3	4	1	
	5	4.5	5	3.5	4	1	
Bosa Noga Beach	5	5	5	4	4	1	3.92
	5	5	5	3	4	1	
	5	5	5	3.5	4	1	
Yellow Rock Beach	5	5	5	4	4	1	3.92
	5	5	5	3	4	1	
	5	5	5	3.5	4	1	
Serbian Orthodox Church of Saint Achille	5	5	5	5	5	5	5.00
	5	5	5	5	5	5	
	5	5	5	5	5	5	

Source: Author's calculation based on SPSS 21.0

The mentioned localities have great regional importance, as can be seen from the ratings in the given table, which is evidenced by the large number of tourists all over the region, visiting this area. The artistic value of the anthropogenic resources of this region is very great and culturally and historically significant, but the average rating is unsatisfactory because there are many natural resources that have no artistic value. From table 15, it can be concluded that the average assessment of the valorization of the given localities is satisfactory, that is, that the localities have good quality that meets regional tourist needs, but with further research, investments, promotion and engagement of tourist workers, this place could be of national importance. A SWOT analysis was also carried out in order to assess the strengths and opportunities, and anticipate weaknesses and threats. In table 16, you can see the results of the research in the form of conclusions reached through a conversation with Mrs. Slavica Jovašević and Mrs. Aleksandra Ivković from the Sports and Tourist Center of Arilje.

Figure 1. Distribution of papers from CEE countries by journals

STRENGTHS	WEAKNESSES
– Rich and diverse natural environment and resources (wealth of forests, meadows, biodiversity and medicinal plants) – Rich cultural and historical heritage and anthropogenic values – Varied traditional gastronomic offer – The population's interest in working in tourism – Hospitality of the local population and positive attitude towards tourists – Existence of infrastructural potential for sports and recreational activities – Local self-government's interest in the further development of tourism – Proximity to emission markets – Hunting and fishing – Not enough travel agencies and guides for the sale and placement of tourist products	– Not enough travel agencies and guides for the sale and placement of tourist products – Underutilized potential for the development of tourist products – Lack of financial resources – Lack of accommodation facilities in rural areas – Bad condition of accommodation units – Insufficient tourist signage – Lack of market research – Insufficiently recognizable offer of the municipality – A small number of specialized shops selling traditional souvenirs and local specialties – Insufficient number of tourist and hospitality establishments that would market the tradition – Poor condition of local roads in rural areas – Inadequate maintenance of infrastructure potential for sports and recreation – Insufficient investment in infrastructure and traffic
CHANCES	**THREAT**
– Underutilization of tourist resources – Significant natural and anthropogenic potentials that have the possibility of greater utilization for tourism purposes – More intensive infrastructural investments in tourism – Favorable trends on the side of tourist demand – Cooperation with other local governments and the creation of an integrated tourist product – Education of employees in tourism at all levels – Increasingly strict requirements of modern tourists	– Competition from surrounding districts – Population migration, outflow of young people and quality personnel, which represents a serious threat to the further development of rural tourism – Slow implementation of investments in infrastructure works – Political and economic instability

Source: Authors

From everything attached (Table 16), it can be seen that the potential for the development of cycling and sustainable tourism exists, but greater investments and engagement of people are necessary in order to raise this

form of tourism to a significantly higher level. A greater investment of funds by municipal authorities is needed, as well as raising the level of awareness of the local population about the impact of cycling and sustainable tourism on the creation of new jobs, raising the standard of living, increasing the number of educated people, which would directly affect the reduction of population migration and the increase in the number of quality personnel. It is also of great importance to design a gastronomic offer that would include authentic gastronomic specialties of this region as well as healthy-organic food for active athletes. At the top of the priorities is investment in the existing and construction of new infrastructure and investment in signage that would help tourists to more easily find bicycle paths, tourist attractions and hospitality facilities necessary for a quality trip. The construction of new catering establishments and the training of a larger number of existing households in rural areas would contribute to a better and faster development of tourism. The promotional activities of the Tourist Organization are also of essential importance, which would include good cooperation with the media and provide better marketing that bicycle tourism in the function of sustainable development would place on the market and achieve a competitive advantage.

4. Conclusions

From all of the above, we can conclude that it was confirmed the starting hypothesis H, which presumed that cycling tourism, as a sustainable form of tourism, through its economic aspects of sustainable development, has a positive effect on strengthening the local population's awareness of the importance of developing this form of tourism in the destination of Arilje, has been confirmed. The economic aspects of the development of bicycle tourism are recognized, and their development is desirable. Also, it can be concluded that sports-recreational tourism, which includes cyclotourism, is a form of tourism that is experiencing increasing popularity both in the world and in the region. The increasing popularity and benefit of cycle tourism stems from the fact that the bicycle as a means of transport is noiseless, does not pollute the environment, reduces fuel consumption, affects the reduction of traffic congestion, does not take up much space, is the cheapest and most efficient means of transport for shorter trips and is part of the ecological " "green" mode of transport. Regular cycling improves a person's mental and physical health, regulates body weight, reduces depression and has a positive effect on overall health. The municipality of Arilje has not yet recognized the tourist potential of cyclotourism, where cycling through hilly and authentic landscapes with recreation and adventure, getting to know cultural and historical sights and local customs is the main motive of the trip. However, the local population recognizes this potential. Cycle tourists include people of different profiles and interests, specific needs, and an adventurous spirit who enjoy everyday challenges and are happy to return to destinations that have met their expectations. Cycling would become the main form of transport both for tourists who would enjoy every experience on offer and for local residents who would use the cycle paths to carry out their daily activities.

In order for this form of sustainable tourism to develop in this area, it is necessary to improve the infrastructure of paths built specifically for cycling as an additional sport-recreational activity in these areas, adequate signage, parking spaces for bicycles, facilities for servicing and renting equipment for cyclists. Also, Arilje is faced with a large lack of accommodation facilities, restaurants and accompanying facilities. Given that a developed accommodation offer is the main prerequisite for the development of any tourist activity, including cycle tourism, it is necessary to develop new hotels, apartments, camps and rural households that would provide cyclists with special facilities such as bicycle storage, repairs, guides, maps of bicycle routes... In order for cycle tourism to take off, it is necessary for tourist agencies to provide adequate information to tourists, to organize promotional activities, to provide the services of a tourist guide, to organize visits to sights that would be marked on maps and guides as places of importance to visit.

Cyclotourism can supplement the existing tourist offer, affect the extension of the tourist season and better utilization of capacities. The economic effects of cycle tourism in a given destination can be very significant. Cyclists influence the increase in tourism income in the local tourism industry, contribute to the development of small businesses and local vendors, create new jobs and employ the local population, encourage the preservation of natural resources and cultural heritage, and influence the increase in awareness of the destination's sustainability. Cycling tourism contributes to the economic development of the destination, but it is necessary that communities and local authorities make the necessary efforts to develop appropriate infrastructure and offer in accordance with sustainable development strategies in order to use the potential of this form of tourism.

Anknowledgment: This research was supported by The Science Fund of the Republic of Serbia, GRANT No. 7739076, Tourism Destination Competitiveness - Evaluation Model for Serbia - TOURCOMSERBIA.

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