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RESEARCH ARTICLE

THE ECONOMIC CONTRIBUTION OF CYCLING FESTIVALS ON TOURISM SECTOR: A STUDY ON CYCLING FESTIVALS IN TURKEY

İsmet Kaya, & Gülcan Özyazıcı Erdoğan*

ABSTRACT

This study was carried out on cycle tourism which is one of the alternative tourism types within the scope of tourism. Both the sensitivity to nature and contribution to the economy of bicycle tourism have become important in recent years. Cycling tourism is very new concept in Turkey; however, it has gained importance in the world for last 50 years. Turkey's geography is suitable for events brought by this concept, and Turkey can compete with other countries after the completion of infrastructure and superstructure works on the bike. In this context, this work leads to the discovery of bicycle potential and cycling activity of Turkey. The main purpose of this research is to determine the amount of expenditures made during the festival by the individuals participating in the bike festivals in Turkey. These amounts are clearly given in many studies on other countries in international literature. However, data on expenditure in the bike festivals could not be reached in the context of Turkey. For this purpose, it is considered that this study will make a significant contribution to this context by eliminating the related gap in literature. The survey also examined whether expenditure trends changed according to personality traits. The fieldwork of the research was carried out on the participants of the Canakkale Bicycle Festival held between 24-26 March 2018. The study was conducted on 291 people determined by guided sampling method among the 3500 participants who participated in the festival. The results show that expenditures are made in accommodation, transportation, food-beverage and other services respectively.

KEY WORDS: Cycling, cycling tourism, cycling activity, cycling festival, five factor personality model.

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1. INTRODUCTION

Nowadays, events are one of the factors that are effective in deciding on destination selection. Destinations where individuals can perform their own unique activities are primarily preferred areas. Cycling activities within the scope of bicycle tourism have also become an important factor in deciding whether to go to a destination, or to choose a destination. The relationship with bicycle tourism has lasted until the 1870s, and has gained importance in the last 50 years, and started to take place in academic studies, as well.

Bicycle is a vehicle whose popularity is increasing day by day in terms of transportation, sports and recreation. The basis of this expansion stems from the fact that the bicycle operates within the framework of sustainability. Bicycle has a great contribution to the states, directly and indirectly, both in economic, health and social terms. In this context, states that are aware of the benefits of bicycles carry out studies on bicycles and provide various incentives to popularize the use of bicycles. Cycling activities within the scope of bicycle tourism, which have increased in recent years, have also mobilized researchers. Cycling events include the time spent by bicycle tourists participating in activities for common or different purposes and their expenses in the region in this process. Cycling activities, especially in rural areas, were noticed by destination planners and policy makers in terms of their social, environmental and economic importance, and efforts were made to improve the infrastructure and superstructure facilities related to cycling. Being aware of this importance, states make great efforts to ensure that cycling activities are to be increased both in number and quality.

Based on all these, cycling activities are the attraction of the destination and they also lead the marketing of that destination. Likewise, the activities within the scope of bicycle tourism are within the scope of sustainable tourism, and it is an alternative tourism type that helps the development of rural areas, and spreads tourism to 12 months by enabling the local people to gain new experiences, and also to improve the products of the local people. In this context, bicycle festivals (also races and tours) both spread the tourism in the country over months, and increase the recognition of the country or destination in order to make the region a brand in this regard.

2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1. Bicycle as a concept

Bike was defined as a vehicle consisting of pedal, chain and two wheels (Sigurd, 2003). In other words, cycling is one of the outdoor sports types that unite the individual with nature, brings the individual away from the restrictions, relaxes spiritually and physically, brings them together with their freedom, gives the chance to watch nature alive, and has many benefits (Öztaş et al., 2014). Bicycle is used for both transportation and recreational purposes as well as being an outdoor activity. Also, having amateur and professional users of the bicycle differentiates its use. In addition, bicycle is used as a means of transportation. A study that supports this has been conducted in America has revealed that cycling is an important resting tool after walking and swimming activities (Sigurd, 2003).

2.2. Historical background

Although the date of Da Vinci's drawings about the bicycle is unknown, it is accepted that he invented the bicycle in 1493 (Ballantine, 2001). The first bicycle patent was given to the Frenchman Jean Theson in 1645 when he made a four-wheeled tool that two people could sit and move. In 1690, a pedalless bicycle with two wooden wheels called "Celerifere" was produced by the French nobleman, Count of Sivrac. In 1817, German Baron Karl Von named the bike "Draisienne" by placing a handlebar and a seat to the bicycle produced by Sivrac, which had two wheels, and presented this invention for the first time in Paris (Aydilek & Sarıçiçek, 2017). With the discovery of the pedal in 1839, the development of the bicycle accelerated. It is claimed that the first version of the modern bicycle was invented in France in 1860 by Ernest Michaux and his father Pierre Michaux. Ernest and Pierre, known by many historians as the first to invent the bicycle, developed the bicycle with a near-present appearance that placed the pedal in the front wheel hub of the bicycle.

2.3. Purposes of use

The changing and developing technology, which does not make any difference between the original purpose and its current purpose, has differentiated the use of the bicycle. It is known that the bicycle is widely used for the purposes of entertainment, hobby and sports.

2.4. Benefits of use

The bicycle, which is used as a means of transportation, contributes to personal health and environment by meeting the daily movement, and not leaving greenhouse gas emissions (Dill, 2009). In addition, bicycle provides economic contribution to the country with business, income and employment opportunities (Weigand, 2008).

In terms of its economics benefits and impact on employment, it is estimated that the economic benefit of bicycles will bring commercial dynamism in city centers by reducing the use of natural resources, reducing expenditures on other transportation vehicles and providing flexible mobility (Öztaş et al., 2014). In a survey conducted by the New York City municipality, it was proven that the shops in the street with bicycle paths had 49% more sales than the shops in the street with no-bicycle-paths, (The CityFix Turkey, 2014).

It is assumed that bicycle stands are more profitable than car parks. In the project made in Texas (USA), 160 bicycle stands were built in the area where a vehicle could fit, and this area costed 12-thousand dollars (Seattle Bike, 2014). Portland contributes 800-million dollars to the local economy annually by using 20% less cars than other cities. Again in Portland, cyclists spend \$76 per a month, pedestrians spend \$66, and cars \$61 (Seattle Bike, 2014). Bicycle use in Washington contributes 3.1-billion dollars to economy each year. Germany, on the other hand, earns 12-billion euros every year from cyclists who come to their country and take a vacation (Seattle Bike, 2014). The research of the World Health Organization has revealed that if the whole of Europe cycles as much as Copenhagen, employment opportunities will be provided for 76 thousand people (Salvi & Rodriguez, 2014).

Table 1. Countries' employment status related to cycling in terms of increase in the use of bicycle in countries

Country	City	Population	Bicycle Utilization Rate (%)	Number of Employment Related to Bicycle	Cycling-Related Employment Potential
USA	Washington	617.996	3	84	647
United Kingdom	London	7.826.000	3	1.069	8.196
Russia	Moscow	11.541.000	3	1.576	12.085
Spain	Madrid	3.265.038	1	149	3.717
Italy	Rome	2.761.477	0	50	3.219
Norway	Oslo	599.230	5	136	573
France	Paris	2.234.105	3	305	2.340
Germany	Berlin	3.501.872	13	2.073	2.073
Turkey	Ankara	4.890.893	3	668	5.122

Source: World Health Organization (WHO, 2018).

2.5. Bicycle utilization rate in countries

The importance of bicycles has been increasing day by day, and states are creating policies and networks related to cycling. It is purported that while developed countries continue to work on bicycles, developing countries have just started their investments.

Table 2. Cities with the highest rate of bicycle utilizati	on
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1. Copenhagen	11. Barcelona
2. Amsterdam	12. Berlin
3. Utrecht	13. Ljubljana
4. Strasbourg	14. Buenos Aires
5. Eindhoven	15. Dublin
6. Malmö	16. Vienna
7. Nantes	17. Paris
8. Bordeaux	18. Minneapolis
9. Antwerp	19. Hamburg
10. Seville	20. Montreal

Source: (Ilicali, 2018).

The first city that comes to mind when it comes to bicycle friendliness in the world is Denmark's capital city 'Copenhagen', and the first country that comes to mind when it comes to labelling one as the bicycle country is 'Netherlands'.

2.6. The concept of bicycle tourism, and factors affecting its dissemination

Bicycle tourism can be defined as the concept of tourism that enables individuals to lead a healthy life. It is used as an alternative for transportation in both metropolises and rural areas, albeit does not create traffic density since it is known as environmentally friendly. It also contributes to the country's economy as well as stimulating the rural economy, and pioneering the promotion of a region and/or place. When the studies on bicycle tourism were examined, it was seen that there was no common definition, and this concept was explained by means of different terms.

The most important factor in the development of bicycle tourism in a region is the improvement of physical infrastructure facilities. Thus, the utilization rate of the bicycles will increase, and as a result, a commercial revival will occur regarding the bicycle. The factors affecting the development of bicycle tourism are listed as follows (Çelik Uğuz et al., 2018):

- Natural Attractions,
- Stakeholders (Collaboration development),
- Bicycle Infrastructure (roads, routes and signs),
- Bicycle Friendly Tourist Services,
- Bicycle Support Services,
- Promotion and Marketing of the Bicycle Tourism.

2.7. Economic value of the bicycle tourism

The value of the bicycle tourism, which is one of the alternative tourism types, has been increasing day by day. It is noticed that as the number of people using bicycles increases, bicycle facilities has increased, and the bicycle tourism industry has been important in the local economy (Çelik Uğuz et al., 2018). Although bicycle industry is related to total sales, when employment provided and the amount of personal income generated, their combination has also been a driving force in developed countries (Weigand, 2008).

	Bicycle	Number	Value of
Place	Economy	of Jobs	the Bicycle
		Created	Tourism
USA	\$133	1.1	\$96.7
	billion	million	billion
Colorado	\$1 billion	2.519	141-193
			million
lowa	\$331.1	9.068	\$165
	million		million
Oregon	\$400	4.600	\$102
	million		million
Washington	\$3.1	200.000	-
	billion		
Wisconsin	\$924	3.420	\$533
	million		million
EUROPE (EU-28)	\$513.2	-	€44 billion
	billion		
United Kingdom	-	-	£2.9 billion
France	-	16.500	€5.6 billion
Scotland	-	-	£117.4-23
			million
Canada/Quebec	-	10.000	1.2 billio
			CAD
New Zealand	\$106.6	1.472	\$76.1
/South Island	million		million

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Table 3. The	value of	t hicycle	tourism i	in some	countries
	value of	i bioyoic	Counsin		countines

Source: (Çelik Uğuz et. al., 2018).

The value of bicycle tourism in developed countries is listed in the table above. When the values are examined, it is seen that the bicycle economy in the USA is \$133 billion whereas it is €513.2 billion in Europe. Likewise, New Zealand's bicycle economy is set to be \$106.6 million. The value of bicycle tourism is as follows, USA (\$96.7 billion), New Zealand (\$76.1 million) and Europe (€44 billion) respectively.

2.8. Economic contributions of cycling activities

Bicycle tourism encourages investors in this area, as it is sensitive to local society and the environment since it protects health, and ensures that unused areas become operational (Çelik Uğuz et al., 2018). In this context, it is apparent that bicycle tourism has the potential to increase in the field of employment besides its social, environmental and health characteristics.

Table 4. Number of participants / audiences, and economic impact of some world famous cycling events

Bicycle Events	Country/City	Number of Participants/ Audiences	Economic Impact
Cape Town Cycle Tour (1978 - =>)	South Africa	35.000	-
Cyclone Festival of Cycling (2007 - =>)	United Kingdom	-	£1.5 million
Register's Annual Great Bicycle Ride Across Iowa/RAGBRAI (1973 - =>)	USA	10.000	\$16.9 million
Taiwan Cycling Festival (2010 - >) The Lake Taupo	Taiwan	-	\$140 million NT
Cycle Challenge/LTCC (1977 - =>)	New Zealand	7.000 cyclists +	\$5.2 million
Tour de France (1903 - =>)	France	2 billion	-

Tour de France			
Grand	Landan	900.000 -	
Depart/TDFGD	London	1.4 million	-
(2007)			
Tour de Georgia			\$26
(2003 - =>)	USA	2.3 million	million
Tour Down Under	Avetralia	705 000	\$49.6
(1999 - =>)	Australia	795.000	million
Tour of Flanders	D I .	40.000	€240
(1992 - =>)	Belgium	16.000	thousand

Source: (Çelik Uğuz et al., 2018)

3. METHOD

By determining whether the expenses of bicycle tourists participating in the Canakkale Bicycle Festival varies according to their personality traits, it was targeted to reveal that these expenditures would vary according to demographic characteristics, and it was explained with the inspiration of the existing methods.

4. FINDINGS AND RESULTS

9 out of 300 questionnaire forms filled in by the participants within the scope of this research were excluded due to their incompleteness and/or incorrectness. The data analysis was conducted on the data obtained from the rest, which was composed of 291 forms.

When the participants age range is examined, it is seen that the density is in the range of 26-35 years (40.5%), 36-45 years (31.6%) and 46-55 years (14.4%) respectively. Again, according to this study, the least participation belongs to the tourists aged between 25 and under (8.3%), and 56 and over (5.2%). The average age of all participants is remarked as 37.5. It is determined that 14.4% of the participants are female whereas 85.6% are male. When the educational status of the participants is examined, it is seen that 28.2% are the graduates of high school and below; on the other hand, 71.8% of them are graduates of university and above. When the income status of the bicycle tourists included in the study is examined, 27.8% of them have 5601 Turkish liras and above, 18.9% have between

4601-5600 Turkish liras, and 23% have between 2601- 3600 Turkish liras, respectively. In terms of the least income range, it appears to be 4.5% (1600 Turkish liras and below), 12.7% (between 1601-2600 Turkish liras) and 13.1% (between 3601-4600 Turkish liras). The average income level of all participants is estimated as 5016.19 Turkish liras. The figure for Turkey's minimum wage (£ 1.603) is appointed to be little higher than three times; therefore, it can be interpreted as a high level of income of cycling tourists who have participated in this study.

Likewise, the participants have answered the question "How many people have attended the last bicycle festival?" The answers are estimated as 42.3% (for 1-2), 29.2% (for 6 and above), 28.5% (for 3-5) respectively. Bicycle festivals are a type of a festival that is formed with the community, and caters the community with fun. The individuals tend to go back to the festival with the people they can get along, have camped and/or have fun with. In general, participants of bicycle festivals join as groups. Likewise, bicycle festivals are known as the places where new friendships are born by bringing people from different cultures and geographies together. In this direction, bicycle festivals allow individuals to organize new festivals together. When the answers given to this open-ended question are examined, it is observed that group participation was either with at least 2 people (25.4%), or 15 people (4.8%) in maximum.

When the open-ended question "How many nights did you stay at the last bike festival?" is addressed to the bicycle tourists included in the study, the answers are as follows: 66.7% (0-2), and 33.3% (3 and above). It is determined that the bicycle tourists included in this study have stayed for 7 days at most, and the busiest days are 2 (37.5%). As a result, it is seen that the number of days allocated for accommodation is calculated solely with the days of the festival since bicycle tourists prefer camping area as their accommodation type, and their only purpose is to participate in bicycle festivals.

The main question, which is the purpose of the study, is "What is the total expenditure of the last bike festival you have attended?" is an open-ended

question. The expenditure groups of the respondents included in the research in the festival are respectively; 35.4% (\$400 and below), 34.0% (\$800 and above), and 30.6% (\$401-800). In general, the average of participants' expenditure is determined as \$772. When the answers given to these open-ended questions are examined, it is seen that the least expenditure is ± 20 , and the highest is ± 5000 . This difference in expenses can be evaluated as organizing festivals in the city of the individual, staying with the acquaintance or participating in a daily festival. Using the accommodation preference for the camping area, and utilizing the food and beverage facilities provided by the festival reduce the amount of expenditure. On the contrary, preferring accommodation as a hotel, motel, hostel or daily house, and preferring eating and drinking in any service area of the region increase the amount of expenditure. Likewise, transportation is another factor that differentiates the expenses of people coming from close and distant places. Another factor is that festival entrance fees differ according to each festival, and make the expenditures vary from one to another. In addition, the fact that people spend according to their own wishes and needs has differentiated bicycle tourists' expenditures.

When the question, "What is your expenditure on the last bicycle festival you have attended? (specifying the festival entrance fee, accommodation, transportation, food and beverage, and other services separately) is directed to the respondents, the answers to the question are emerged in the table given below:

Festival Entrance	Food-	Accommodation	Transportation	Other	Total
Fee (も)	Beverages (も)	(も)	(も)	(も)	(も)
29.490	33.858	72.615	45.735	14.699	196.397

It is seen above that the total expenditure of the participants is 196.397 も. According to this (196.397 / 291), the average expenditure of bicycle tourists per capita is calculated as 675も. Festival entrance fees vary according to each festival. It includes opportunities such as accommodation; hotel, motel, hostel, tent, etc. Transportation covers the total round trip transportation fee (transportation types such as plane, bus, train, individual vehicle, etc.) for accessing the area where the bicycle festival is held. Other expenses include expenses such as souvenirs, movies, books, clothes, etc.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

Bicycle is a means of transportation, sports and entertainment, whose importance and value has been increasing day by day, and it is also of particular importance for the tourism sector. While it directly affects the individual in social, health and economic terms, it also indirectly has an economic impact on the state. Therefore, the bicycle has a commercial revitalization task in city centers. In a survey conducted by the New York City municipality, it was proven that the shops in the street with bicycle paths had 49% more sales than the shops in the street with nobicycle-paths, (The CityFix Turkey, 2014).

Due to the increasing population of crowded countries, the number of personal vehicles used has increased in recent years. This brought along the traffic and parking problems. In addition to its environmental and economic benefits, the benefits of the bicycle to health are also important. According to a report prepared by a Swiss university, osteoporosis is less common in individuals who perform activities related to cycling (Daily News, 2011). For this reason, the use of bicycles has been increasing day by day both in Europe, and in the world. As there is a slight development in Turkey in this direction, it is clear that this development is not at an adequate level. According to the results of the studies, it can be concluded that bicycle tourists spend more than other tourists, and contribute more to local regions. With these features, bicycle tourists are described as "Wheeled Wallet" (BFA, 1999).

It is determined that bicycle tourists spend \$57.08 per day across Europe, \$75 per day in Montana state in the USA, and \$52 per day in Quebec province of Canada.

These expenditures differ by country. These differences are due to the existence of spending areas on the bicycle route. Another reason for the difference is that the spending of bicycle tourists varies according to the number of people they all attend together, and the number of days they stay. National and international events have started to take place in academic studies due to their economic contribution to the region. Looking at the cycling events organized around the world, they are regarded as important events that bring significant contribution to their regions like Tour de Flanders with an amount of \leq 240.000, Tour Down Under with an amount of \$49.6 million, Tour de Georgia with an amount of \$26 million, and Taiwan Cycling Festival with an amount of \$140 million. This shows the importance of how bicycle tourists can contribute to a region with respect to economy.

In this study, both bicycle and its effectiveness by its economic value in the world are revealed together with the cycling tourists' expenditures in the events organized in Turkey. In addition, in this study, the effect of personality traits of bicycle festival participants on festival expenditures are also examined. Accordingly, it can be said that bicycle tourists participating in bicycle festivals are individuals of compliance (3.97), open to experience (3.93), responsible (3.70), and extroverted (3.63). As a result, it is revealed that bicycle tourists who are outgoing and open to experience spend more. At the same time, as a result of the regression analysis, it is determined that the personality traits of bicycle tourists in cycling activities has explained 13.2% of the festival expenditures. In the study, it is also determined that female bicycle tourists spend more than male bicycle tourists (978.33), and the age group who spends most is the age group of 46 and over (1075. 09). Last but not least, people with higher income spend more as expected (5601 and over = 116.85), and the expenses vary according to the length of stay.

5.2. Recommendations

Recommendations based on all these are listed as follows: widespread use of bicycles in Turkey should be provided, and the perception of people who can use bicycle comfortably at any age, or gender should be established. Here, public institutions and related private organizations need to motivate and encourage bicycle tourists. While these are taking place, the infrastructure and superstructure

opportunities related to cycling should be improved, bicycle paths should be increased, and the rights of bicycle tourists should be protected both on the road, and in the law. As cycling activities cover one or more days, their wishes and expectations must be met as well as providing confidence to the participants with camping accommodation. In reorganized events, planned and scheduled routes should be prepared and participants should not be victimized on the time of the event. Participants should be informed about the festival routes before the event takes place by using technology. Access for the bicycle festivals organized in Turkey is provided in the website named "Bicycle Routes". Instead, all the festivals that include the scope and content of a site hosting information related to any kind of bike festivals (such as Turkey Cycling Federation) should be developed. In addition, bike-friendly businesses need to be increased in number, and need to be supported. While organizing bicycle festivals, it should be prepared by paying attention to other festival dates. Promotional activities should be started long before, in order to achieve more participation in festivals. It would be beneficial to have logos for national and international festivals to become a brand. In order to change the perspective of the local people living in the region where bicycle festivals are held, various trainings should be organized and the local people should be encouraged to participate in these festivals. During festival times, traditional products of the region should be promoted, and stands should be opened where local people can sell them. Branding should be done in order for Turkey to take place in top-rankings in cycling events. The number of festival days can be increased, and thus, the days of accommodation together with the expenditure of tourists can be increased. The number of non-festival overnight days can be increased by catering opportunities such as accommodation, food and beverage, which are the alternatives in the areas where festivals are held. Likewise, by lowering festival prices and providing variety of products that can be spent, bicycle tourists can be directed to spend more. Promotion support can be obtained from the media on the date it is organized for each festival (publication of bicycle festivals on TRT). Bicycle festival organizers can go to branding with a higher quality program by getting sponsor support. In order to increase the number of female participants in bicycle festivals, more reliable accommodation with festival-specific pricing should be provided. Bicycle festival marketers should analyze the process of who are the bike tourists participating in the festival, what personality traits they have, how they behave, and which products and services they will choose for participating in the festival, and organize them accordingly in the next festival(s).

DISCLOSURE OF CONFLICT

The author(s) declare that they have no conflicts of interest.

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