

**LOCAL PEOPLE'S PERCEPTION OF ECOTOURISM: THE CASE OF SALDA LAKE**

Özgür Yayla \*, İlker Çinbilgel \*\* &amp; Özlem Dağdelen \*\*\*

**Abstract**

The present research was carried out in the sample of Salda Lake in Turkey in order to determine the perception of local residents about cultural, economic and environmental effects of ecotourism and to identify the effect of these variables on their support for tourism development in the region. In the research, it was concluded that cultural, economic and environmental effects of ecotourism act as an antecedent of the support by local people residing around Salda Lake on tourism development in the region. In addition, the local people's length of residence in the region creates a moderating effect in the relationship between cultural, economic and environmental effects of tourism and the residents' support for tourism development. The research findings provide suggestions to tourism planners, destination management organizations (DMO) and academicians studying in the context of tourism literature.

**Key words:** Ecotourism. Tourism impacts. Residents. Attitud.

**PERCEPÇÃO DE ECOTURISMO DAS PESSOAS LOCAIS: O CASO DE SALDA LAKE****Resumo**

A presente pesquisa foi realizada na amostra do Lago Salda, na Turquia, com o objetivo de determinar a percepção dos residentes locais sobre os efeitos culturais, econômicos e ambientais do ecoturismo e identificar o efeito dessas variáveis no apoio ao desenvolvimento do turismo na região. Na pesquisa, concluiu-se que os efeitos culturais, econômicos e ambientais do ecoturismo atuam como um antecedente do apoio dos moradores do entorno do Lago Salda ao desenvolvimento do turismo na região. Além disso, o tempo de residência da população local na região cria um efeito moderador na relação entre os efeitos culturais, econômicos e ambientais do turismo e o apoio dos residentes ao desenvolvimento do turismo. Os resultados da pesquisa fornecem sugestões para planejadores de turismo, organizações de gerenciamento de destino (DMO) e acadêmicos que estudam no contexto da literatura de turismo.

**Palavras-chave:** Ecoturismo; Impactos do turismo; Moradores; Atitude.

**PERCEPCIÓN DEL ECOTURISMO DE LA GENTE LOCAL: EL CASO DEL LAGO SALDA****Resumen**

La presente investigación se llevó a cabo en la muestra del lago Salda en Turquía con el fin de determinar la percepción de los residentes locales sobre los efectos culturales, económicos y ambientales del ecoturismo e identificar el efecto de estas variables en su apoyo al desarrollo turístico en la región. En la investigación se concluyó que los efectos culturales, económicos y ambientales del ecoturismo actúan como un antecedente del apoyo de la población local que reside en los alrededores del lago Salda al desarrollo turístico de la región. Además, el tiempo de residencia de la población local en la región crea un efecto moderador en la relación entre los efectos culturales, económicos y ambientales del turismo y el apoyo de los residentes al desarrollo turístico. Los resultados de la investigación brindan sugerencias a los planificadores del turismo, las organizaciones de gestión de destinos (DMO) y los académicos que estudian en el contexto de la literatura turística.

**Palabras clave:** Ecoturismo; Impactos del turismo; Residentes; Actitud.



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## 1 INTRODUCTION

Tourism is one of the largest sectors at national and global scale. So much so that the tourism industry supports one in 10 jobs (319 million) worldwide and generates 10.4% of global GDP. One in five jobs was created by the tourism industry in the last five years, and thus, travel and tourism became the best partners of governments in the context of creating employment opportunities (WTTC, 2020).

The fact that tourism is a growing sector on such a wide scale has brought along the discussions about its environmental impacts on destinations. According to Wolf, Croft & Green (2019), there is a potential for a symbiotic relationship between tourism and conservation of natural areas. Hetzer has identified four key principles for a more responsible type of tourism, namely: 1) minimum environmental impact, 2) minimum impact on and maximum respect for the host (local) cultures, 3) maximum economic benefits to the host community and 4) maximum satisfaction to participating recreational tourists (Fennell 2015).

Machura's study published in 1954 is the first academic study that has sowed the seeds of the relationship between tourism and conservation, and it argues that tourism could act as an agent that evokes and expresses the love for nature (Fennell 2015). According to Gutiérrez, Macias, Pionce, (2019), tourism movements move away from the difficult flow of daily life and take shape by resting, having fun, being treated or experiencing nature and the main source of these activities consist of natural and cultural wealth.

Nevertheless, mass tourism raises concerns about the sustainability of natural resources. Therefore, ecotourism, a type of tourism that ensures the protection of natural resources and paves the way for local development, has emerged in response to mass tourism. Ecotourism emerged as a form of tourism for the benefit of society, separate from mass tourism, and the participation of local people was taken as a basis (Kalaoum & Santiago, 2020).

As a matter of fact, Osman, Shaw & Kenawy (2018) argue that destinations bearing ecotourism potential can drive a considerable economic and cultural mobility in the region. Furthermore, the surveys conducted by the World Tourism Organization reveal that travel expenditures on ecotourism have increased 5 times more than the worldwide average of the other worldwide average of expenditures on other tourism types, which corresponds to 20 percent-increase annually (Akoğlu, 2018).

According to Balmford, Green, Anderson, Beresford, Huang, Naidoo, Walpole & Manica (2015) it is estimated that the world's terrestrial protected areas will host more than eight billion recreational visitors per

year, and iconic parks and the areas nearby cities and characterized by intense tourism activities will be affected disproportionately.

The Yellowstone National Park (PN), which was created in 1872 and has the title of being the world's first Protected Area, does not reside in the Protected Areas, and the protection of natural resources and the necessity for tourists visiting the region to have protection awareness has emerged (Santos, Melo, Cardoso-Leite, 2019).

According to Honey (2008), ecotourism, strongly promoted as a development acting as panacea, can be defined as a trip to delicate, pristine and often protected areas and intended to be low-impact and small-scale. Today, one of the most frequently talked about issues in the scientific world and in various fields in society is the problems experienced in ecological dimensions and ecology.

Globally, people's preference for nature in tourism activities has revealed the concept of "ecotourism" and researches conducted with it have also stated that ecotourism includes education aimed at increasing ecological awareness (Freire & Almeida, 2018). Ecotourism teaches a lot to the traveler, provides funding for protection, directly benefits the economic development and political empowerment of local communities, and fosters respect for different cultures and human rights.

According to the International Ecotourism Society (TIES) (2015), ecotourism is defined as "a responsible travel to natural areas that conserves the environment, sustains the well-being of local people, and involves interpretation and education". According to TIES, ecotourism combines conservation, peoples (communities) and sustainable travel.

While tourism provides a positive economic development for the region where it operates and the people living in this region, it creates new job opportunities, improves employment and increases the quality of life of the local people (Gutiérrez, Macias, Pionce, 2019).

According to Ross & Wall (1999), the main functions of ecotourism are the protection of natural areas, the provision of high-quality tourism experiences and the stimulation of local economies through providing resources for conservation, environmental education and local empowerment. Arguing that familiarizing with local people in a region is necessary for successful tourism development and sustainability, Zamani-Farahani (2016) highlights the importance of the role of local residents in tourism development.

Many studies conducted in the samples of local residents and other stakeholders conclude that ecotourism in protected areas generates income and yields benefits for local residents (Baker 1997; Green &

Higginbottom 2000; Landell-Mills & Porras 2002; Christ, Hillel, Matus & Sweeting, 2004; Ezebilo & Mattsson 2010; Gan, Nair & Hamzah, 2019; Mu, Nepal & Lai 2019; Puri, Karanth & Thapa, 2019; Tretiakova, Brankov, Petrović, Syromiatnikova, Radovanović & Yakovlev, 2019).

Taking the views of local people into consideration in resource utilization increases the applicability of resource management strategies in the context of ecotourism (Agardy 1993). Indeed, Ross & Wall (1999) reported that the success of ecotourism depends on the harmony between tourism and the conservation of resources by local residents.

Besides, Zang & Lei (2012) argue that increasing the environmental awareness levels of local residents paves the way for building a positive attitude towards ecotourism. In addition, the positive attitudes of local residents towards ecotourism, especially towards the attributes and management principles of ecotourism, may prompt their active participation in local tourism in return (Zang & Lei 2012).

For the communities interested in ecotourism, certification in the production of internationally-traded tourism products is considered as a way to ensure the fulfillment of environmental performance, as well as preserving the cultural heritage features of the products in an effective way (Buckley 2002). Community-based ecotourism approach fosters the protection of not only the quality of life of residents but also of natural resources.

As an answer to the question of how to foster economic growth without causing any damage to the environment, it has been revealed in previous studies that involvement of local residents into ecotourism industry is of great importance for successful tourism development and that their active participation into the process brings along more visible positive contributions to ecotourism (Ross & Wall 1999; Scheyvens 1999; Pretty & Ward 2001; Stronza 2007; Heyneman 2019).

In the light of the above-mentioned resources, the present study was conducted with the purpose of inquiring about the importance of ecotourism in Turkey and of identifying the attitude of local residents towards ecotourism development in Salda Lake, which is one of the most important antecedents of tourism development in the region.

## 2 THEORETICAL REVIEW

### 2.1 Features of Salda Lake

Salda Lake is located in Yeşilova district of Burdur Province, southwestern Turkey. Its altitude is 1139 m. With a depth of 184 meters, it is the second deepest lake in the world, and the deepest lake in Turkey. Salda Lake is preserved as a natural protected area and a

nature park and is surrounded by Doğanbaba, Salda, Kayadibi Villages and Eşeler Mountains.

Salda Lake is of tectonic origin and slightly salty. It contains high levels of MgSO<sub>4</sub> stemming from Serpentine rocks. This substance is the key factor which colors the lake in turquoise blue. The bottom layer of the Lake is covered with bacterial-origin white rocks called stromatolite which has emerged in the archaic period and continues its formation in our day and time. Stromatolites and stromatolite residues across the Lake color the coastline in white (Yılmaztürk, Yılmaz, Berberoğlu & Ertaş, 2013; Ongun, Gövdere & Durgun Kaygısız, 2015).

Picture 1: Salda Lake



Source: original from the authors; (1) 13 October 2019; (2) 4 January 2019; (3) 30 October 2019; (4) 30 October 2019.

The lake is surrounded by a steppe vegetation cover involving maquis scrubland, red pine and mixed larch forests, and rocks, and a habitat characterized by serpentine rock.

The area embodies very important endemic species such as *Verbascum dudleyanum*, *Galium canum subsp. antalyense*, *Apera triaristata*, *Ekimia bornmuelleri*, *Saponaria halophila*, *Saponaria kotschyi*, *Astragalus serpentinicola*, *Fritillaria saldaensis* and *Verbascum trapifolium*. The species of *flabellifolium* are peculiar to Salda Lake and its surrounding area. Endemic plants such as *Saponaria prostrata*, *Sideritis libanotica*, *Inula anatolica*, *Scorzonera tomentosa*, *Bolanthus cherlerioides* grow on the surrounding rocks (Özçelik, Çinbilgel, Muca, Koca, Tavuç & Bebekli 2014).

*Aphanius splendens* and *P. burduricus* are the unique fish species identified in Salda Lake (Küçük, Gülle, Güçlü, Çiftçi & Erdoğan, 2013). Again, many bird species [such as *Dikkuyruk (Oxyura leucocephala)*, Crested pelican (*Pelecanus crispus*), Flamingo

(*Phoenicopterus roseus*)] can be encountered around Salda Lake.

In addition, some of the reptile species peculiar to Salda Lake and its surrounding area can be listed as banded-viper, Taurus lizard, dice snake and large green lizard.

## 2.2 Research Purpose and Hypothesis Development

The desire to escape from the crowd driven by growing world population and the concept of environment gaining further importance in the 1990s have placed the concept of ecotourism in a more significant position (Honey, 2008).

At this point, destinations with ecotourism potential come to the forefront. Despite the fact that Salda Lake as a destination is characterized by a great ecotourism potential, the number of studies carried out on local residents' perception of tourism in the region is very scarce. As a matter of fact, local people residing in a tourism destination are affected by tourism positively or negatively (Tosun, 2002; Chang, 2010; Vada, Prentice & Hsiao, 2019). The impacts of tourism on local residents also affect their support for tourism development (Long, Perdue & Allen, 1990; Wang & Pfister, 2008). In the light of this general assumption in the literature, research hypotheses in the present study were developed as follows:

**H1a:** Cultural effects of ecotourism affect local residents' support for tourism development.

**H1b:** Economic effects of ecotourism affect local residents' support for tourism development.

**H1c:** Environmental effects of ecotourism affect local residents' support for tourism development. There are findings in the literature revealing that the length of residence in the destination is influential on residents' attitude towards tourism (Lankford & Howard, 1994; McGehee & Andereck, 2004).

In previous studies, it was reported that support for tourism development differs based on the length of residence in the region (Akova, 2006; Okuyucu & Somuncu, 2012). On the other hand, the moderator role of the length of residence in the relationship between cultural, economic and environmental effects of tourism and support for tourism development in the region remained unclear. In this context, H2, H3 and H4 were developed in line with the research purpose as follows:

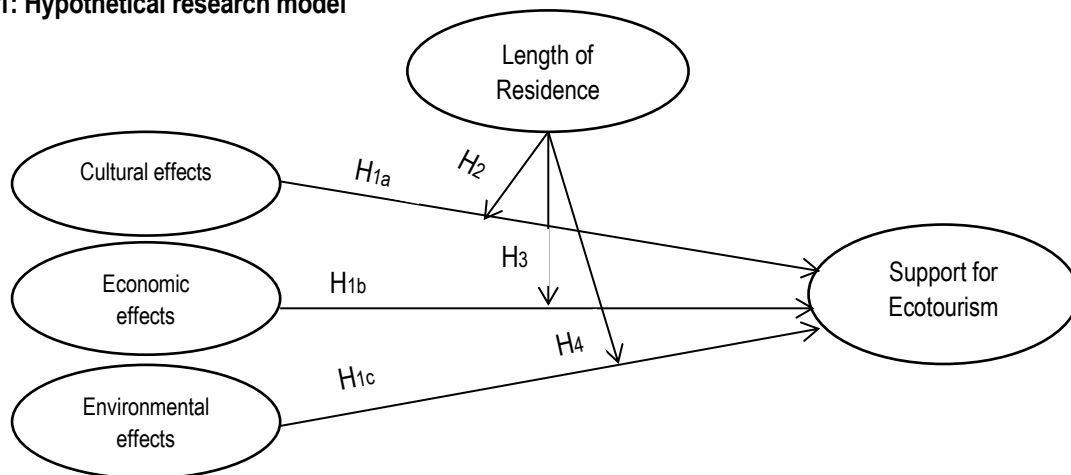
**H2:** The length of residence plays a moderator role in the relationship between cultural effects of ecotourism and residents' support for tourism development.

**H3:** The length of residence plays a moderator role in the relationship between economic effects of ecotourism and residents' support for tourism development.

**H4:** The length of residence plays a moderator role in the relationship between environmental effects of ecotourism and residents' support for tourism development.

The hypothetical research model developed based on the research hypotheses are demonstrated in Figure 1.

Figure 1: Hypothetical research model



Source: elaborated by the authors.

## 3 METHODOLOGY

In the research, survey was used as data collection tool. A questionnaire form was prepared in the light of a comprehensive literature review

(Andereck & Vogt, 2000; Yoon, Gursoy, Joseph & Chen, 2001). The form involves 3 items in each factor category related to cultural, economic and environmental effects of tourism and support for tourism development. A total of 12 items were

measured utilizing a 5-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree).

The research sample is composed of local people residing in the surrounding area of Salda Lake, one of the ecotourism destinations in Turkey with its growing importance.

According to Butler's (1980) destination life cycle model, it can be indicated that Salda Lake is at the stage of involvement. At this stage, identification of local residents' attitude towards ecotourism in the region is of vital importance in the development and deployment of effective tourism policies in the region. Within the scope of the study, a total of 402 people residing around Salda Lake were interviewed.

Following the elimination of incomplete and incorrect questionnaire forms, the data set of 390 eligible questionnaire forms was subjected to analysis. In order to test the research hypotheses developed in line with the research purpose, factor analysis, multiple regression analysis, moderator analysis and SPSS Process were employed.

### 3.1 Respondents Demographic Profile

64.9% of respondents are male (n = 253), 40.8% are in the age range of 25-44 (n = 159), 37.4% are elementary school graduates (n = 146), 62.1% are married and have children (n = 242), 50.5% are in the income range of 2000 and 4000 TL (n = 197), and 22.6% are workers (n = 88). While 35.2% of respondents live in the surrounding area of Salda Lake for 10 years and less (n=137), 24% live for 11-30 years (n = 94) and 40.8% live for 31 years or more (n = 159).

### 3.2 Descriptive Results

The measurement items in the study were subjected to exploratory factor analysis. The analysis results are provided in Table 1. It is seen in the Table that all factor loadings are at and above 0.50. Accordingly, it can be reported that the measurement scale is reliable (Hair, Babin, Anderson & Tatham, 2005). Furthermore, it is observed that all items intended to measure the perception of ecotourism explain 75% of the overall variance.

**Table 1: Factor Analysis on Perception of Ecotourism**

Factor variables	Factor loadings			
	1	2	3	4
<b>Factor 1: Cultural effects</b>				
It ensures the development of cultural activities in the region.	,815			
It increases the quality of life of residents	,879			
It expands recreational options for local residents	,820			
<b>Factor 2: Economic effects</b>				
It promotes traditional products.		,729		
It creates new employment opportunities in the region		,901		
It provides the region with investment opportunities		,804		
<b>Factor 3: Environmental effects</b>				
It causes environmental deterioration			,809	
It disturbs natural balance			,891	
It causes distorted urbanization.			,764	
<b>Factor 4: Support for Tourism Development</b>				
Further efforts are required for ecotourism development				,772
Investments on ecotourism should be increased.				,887
I support ecotourism development in the region.				,856
<b>Overall AVE value:</b> 74,964				
<b>Kaiser-Meyer-Olkin Measure of Sample Adequacy:</b> ,742				
<b>Bartlett's Test of Sphericity: Chi-square:</b> 2196,355 <b>Degree of freedom:</b> 66 <b>p value:</b> 0,000				

Source: elaborated by the authors.

**Table 2: Correlation and Reliability Coefficients and Standard Deviation and Mean Values of Scales**

Factors	Correlation Coefficients				MV.	SD.	Cronbach's Alpha
	1	2	3	4			
1.Cultural effect	<b>1,00</b>				3,26	1,22	0,847
2.Economic effect	,290	<b>1,00</b>			3,42	1,15	0,788
3.Environmental effect	-,117	-,018	<b>1,00</b>		3,09	1,16	0,767
4.Support for tourism dev.	,446	,368	-,160	<b>1,00</b>	3,64	1,17	0,862
<b>Significance level = 0,01</b>							

Source: elaborated by the authors.

Based on the constructs involved in the scales, inter-factor correlations and reliability scores were analyzed. The analysis results are provided in Table 2. In addition, the mean and standard deviation scores of

the scales are demonstrated in the Table. Since Cronbach's Alpha values of all scales are greater than 0.70, it can be reported that the scale is reliable (Nunnally, 1978).

#### 4 FINDINGS

**Table 3: Regression Analysis of the Relationship Between Local People's Perception of Ecotourism and Support for Tourism Development**

Model	Non-standardized $\beta$	t	p	Multicollinearity		Values of Regression Model
				Tolerance	VIF	
Cultural effect	,342	7,802	,000	,903	1,107	Adj. R <sup>2</sup> =0,268
Economic effect	,266	5,803	,000	,916	1,092	F=48,501
Environmental effect	-,114	-2,603	,010	,986	1,014	P=0,000

Source: elaborated by the authors.

Since it is observed in Table 3 that F value is 48.501 and p value is less than 0.05, it can be concluded that the regression model is statistically significant.

It is put forward that local residents' perceptions of cultural, economic and environmental effects of ecotourism explain 27% of the support for tourism development in the region. Moreover, cultural effects ( $\beta = ,342$ ;  $p=0,000$ ) and economic effects ( $\beta = ,266$ ;  $p=0,000$ ) positively affect support for tourism development in the region.

On the other hand, the perceived environmental effects driven by ecotourism development have a negative effect on residents' support for ecotourism in the region ( $\beta = -,114$ ;  $p=0,010$ ).

In other words, environmental effects of ecotourism hamper the support for tourism development in the region. In the light of these findings,

H1a, H1b and H1c are supported.

In the event that a regression model involves multiple independent variables, the presence of multicollinearity problem among the variables must be controlled in order to be able to proceed with data analysis. In this regard, the Tolerance and VIF values are of great importance.

The first parameter to control multicollinearity problem is the Tolerance value. The Tolerance value is supposed to be greater than 0.10 (Hair, et al., 2005). While some researches purport that VIF value is supposed to be 4 and below (Hair, et al., 2005), some others claim that it is supposed to be 2.5 and below (Allison, 1999).

Based on the results acquired, it can be reported that the Tolerance and VIF values are eligible and there is no multicollinearity problem.

**Table 4: Bootstrap Regression Analysis Results**

Variables	Support for Ecotourism				
	$\beta$	Confidence Interval		Standard error	t value
		Min.	Max.		
<b>Hypothesis 2</b>					
Cultural effects	0.126	-0.075	0.327	0.102	1.232
Length of residence (W)	-0.209*	-0.343	-0.076	0.067	-3.097
X.W (Interaction)	0.621*	0.024	0.099	0.192	3.236
R <sup>2</sup>	0.219				
Short-term	0.254*	0.113	0.387	0.069	3.584
Medium-term	0.498*	0.400	0.597	0.049	9.998
Long-term	0.561*	0.440	0.681	0.061	9.181
<b>Hypothesis 3</b>					
Economic effects	-0.0372	-0.243	0.168	0.104	-0.355
Length of residence (W)	-0.346*	-0.486	-0.205	0.071	-4.838
X.W (Interaction)	0.087*	0.047	0.127	0.020	4.322
R <sup>2</sup>	0.186				
Short-term	0.138	-0.000	0.277	0.070	1.960
Medium-term	0.490*	0.383	0.596	0.054	9.032
Long-term	0.578*	0.446	0.710	0.067	8.618

<b>Hypothesis 4</b>					
Environmental effects	0.094	-0.145	0.334	0.121	0.774
Length of residence (W)	-0.096*	-0.049	0.243	0.074	1.297
X.W (Interaction)	-0.052*	-0.097	-0.008	0.022	-2.334
R <sup>2</sup>	0.053				
<i>Short-term</i>	-0.011	-0.173	0.151	0.082	-0.132
<i>Medium-term</i>	-0.221*	-0.330	-0.112	0.055	-4.001
<i>Long-term</i>	-0.274*	-0.408	-0.140	0.068	-4.015

Source: elaborated by the authors.

Regression analysis based on the Bootstrap Method was performed to identify the moderator role of the length of residence in the relationship between cultural, economic and environmental effects of tourism and support for tourism development in the region. It is purported that the Bootstrap Method yields more reliable results than the Baron and Kenny (1986)'s traditional method (Hayes, 2013).

The analyses were carried out via Process Macro developed by Hayes (2013). For the analysis process, the Bootstrap Method with an option of 5000 resampling was preferred. In the context of regulatory impact analysis performed via the Bootstrap Method, the values in the 95% confidence interval must not include zero so that research hypothesis is supported.

Accordingly, it is concluded that cultural effects, the length of residence and the interaction term which are referred to in H2 have a statistically significant effect

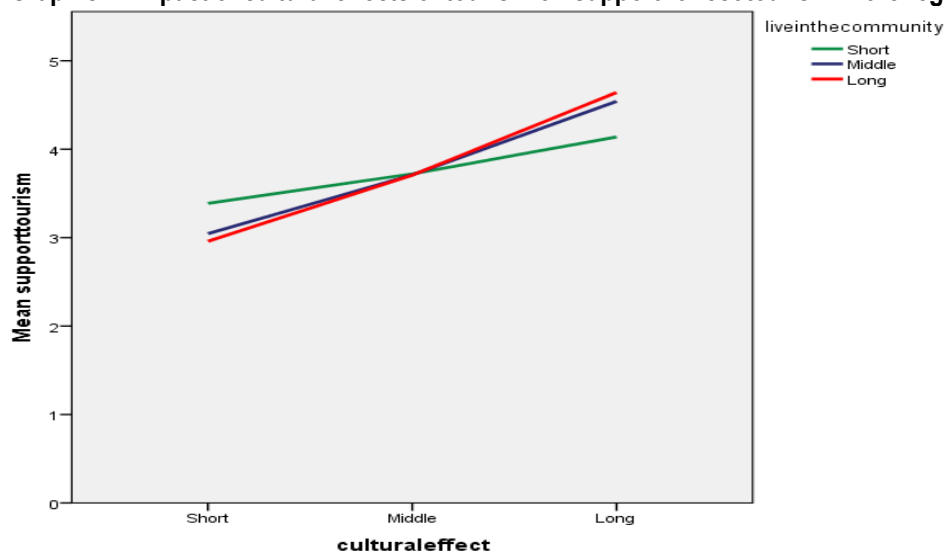
on the support for ecotourism development, which is the dependent variable in the study.

The fact that the interaction term reflects statistically significant  $\beta$  value, which clarifies the presence or absence of moderating effect in a relationship, reveals that the length of residence in the region has a moderating effect ( $\beta=0.621$ , %95 CI [0.024, 0.099],  $p<0.05$ ).

The regression analysis results put forward that all predictor variables incorporated into the analysis process explain approximately 22% of the alterations regarding the support for ecotourism.

As the moderating effect is analyzed in detail, it is observed that the impact of cultural effects of tourism on support for ecotourism in the region escalates in the event that the length of residence is long ( $\beta =0.561$ ,  $p<0.001$ ). The impact in question is demonstrated in Graphic 1.

**Graphic 1: impact of cultural effects of tourism on support for ecotourism in the region.**



Source: elaborated by the authors.

It is concluded in the current study that economic effects, the length of residence and the interaction term which are referred to in H3 have a statistically significant effect on the support for ecotourism development (dependent variable).

The fact that the  $\beta$  value of interaction term, which clarifies the presence or absence of moderating effect

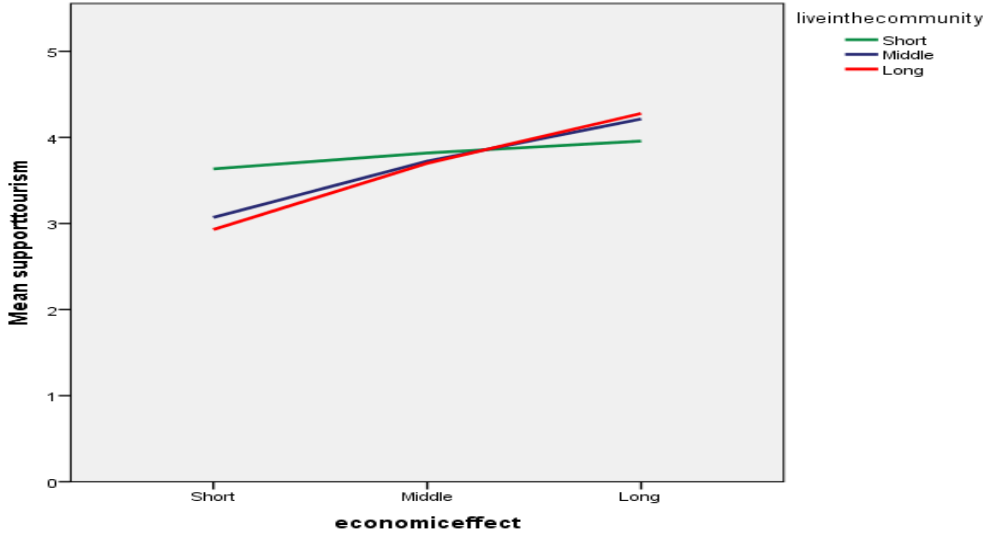
in a relationship, is statistically significant reveals that the length of residence in the region has a moderating effect ( $\beta = 0.087$ , %95 CI [0.047, 0.127],  $p<0.05$ ).

The regression analysis results put forward that all predictor variables incorporated into the analysis process explain approximately 19% of the alterations regarding the support for ecotourism.

As the moderating effect is analyzed in detail, it is observed that the impact of economic effects of tourism on support for ecotourism development in the region is insignificant in the event of short period of residence in the region, whereas the influence in question escalates

in the event of middle ( $\beta=0.490$ , %95 CI [0.383, 0.596],  $p<0.05$ ) and long-term residence ( $\beta=0.578$ , %95 CI [0.446, 0.710]  $p<0.05$ ). The impact in question is demonstrated in Graphic 2.

**Graphic 2: impact of economic effects of tourism on support for ecotourism in the region.**



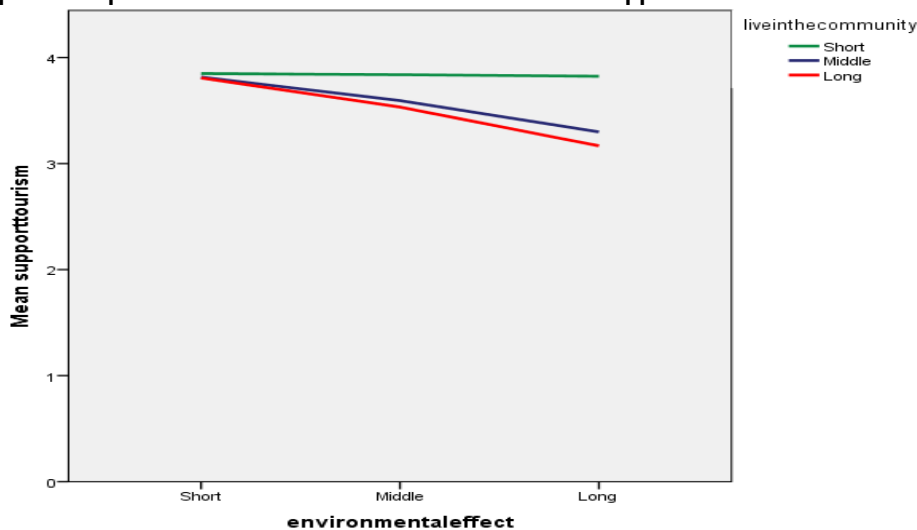
Source: elaborated by the authors.

It is concluded in the current study that environmental effects, the length of residence and the interaction term which are referred to in H4 have a statistically significant effect on the support for ecotourism development (dependent variable).

The fact that the  $\beta$  value of interaction term, which clarifies the presence or absence of moderating effect in a relationship, is statistically significant reveals that the length of residence in the region has a moderating and negative effect ( $\beta=-0.052$ , %95 CI [-0.097, -0.008],  $p<0.05$ ). The regression analysis results put forward that all predictor variables incorporated into the analysis

process explain approximately 5% of the alterations regarding the support for ecotourism. As the moderating effect is analyzed in detail, it is observed that the impact of economic effects of tourism on support for ecotourism development in the region is insignificant in the event of short period of residence in the region, whereas the impact in question escalates in the event of middle ( $\beta=-0.221$ , %95 CI [-0.330, -0.112] and long-term residence ( $\beta=-0.274$ , %95 CI [-0.408, -0.140],  $p<0.05$ ). The impact in question is demonstrated in Graphic 3.

**Graphic 3: impact of environmental effects of tourism on support for ecotourism in the region.**



Source: elaborated by the authors.



## 5 DISCUSSION AND CONCLUSION

The present research was carried out in the sample of Salda Lake in Turkey in order to determine the perception of local residents about cultural, economic and environmental effects of ecotourism and to identify the effect of these variables on their support for tourism development in the region.

In addition, the local people's length of residence in the region was examined as a moderator variable. The research results concluded a three-factor construct consisting of cultural, economic and environmental effects of ecotourism, which shows parallelism with the findings of other studies carried out in the context of different tourism types (Kim, Uysal & Sirgy, 2013, Lee & Jan, 2019).

In this regard, the scale developed in the current study can be employed in future studies to measure the effects of ecotourism. Another important finding in the study revealed that the cultural effects of ecotourism had a significant impact on the support for tourism development in the region.

Kim et al. (2013) claim that cultural effects are an important variable in local residents' support for tourism development in the region. In the current study, it was also concluded that cultural effects arising from ecotourism acted as an antecedent of support for tourism development in the region.

The research results also indicate that economic effects of ecotourism have an influence on support for tourism development in the region. According to Scheyvens (1999), ecotourism as an economic power provides the local community with permanent economic benefits, ensures, as a psychological power, the recognition of unique natural resources and traditions by the external world and thus increases the respect for local people, maintains and develops, as a social power, the local people's determination (balance), and ensures as a political power that the interests, desires and opinions of the local people are taken into notice and represented. In this regard, this finding shows parallelism with the findings in the literature.

In the present study, it was concluded that environmental effects of ecotourism influenced local residents' support for tourism development. Similarly, Gursoy, Boğan, Dedeoğlu & Çalışkan (2019) reported that economic, social and environmental factors related to social responsibility activities in hotels were antecedents of local residents' support for tourism development.

While the study by Gursoy, Boğan, Dedeoğlu & Çalışkan (2019) reveals that environmental effects have a positive impact on support for tourism development, the finding concluded in the present

research has a negative direction. In other words, environmental effects of ecotourism negatively affect support for tourism development in the region.

Unlike previous studies, the present study examined the moderator role of the length of residence in the relationship between cultural, economic and environmental effects of ecotourism and support for tourism development in the region.

As a result, it was put forward that the length of residence in the region played a moderator role in the relationship between the above-mentioned variables. In the context of cultural effects the moderator role was significant in short, medium and long-term residence whereas it was significant only in medium and long-term residence in the scope of economic and environmental effects.

The current study was conducted on 390 respondents residing around Salda Lake, Turkey which bears a strong ecotourism potential. Comparing the findings in the current study with those to be obtained by future research in different sample groups is of great importance to expand the knowledge base of the literature.

## REFERENCES

- Agardy, M. T. (1993). Accommodating ecotourism in multiple use planning of coastal and marine protected areas. *Ocean & Coastal Management*, 20 (3), 219-239. [https://doi.org/10.1016/0964-5691\(93\)90068-A](https://doi.org/10.1016/0964-5691(93)90068-A)
- Akoğlu, Z. (2018). *Sürdürülebilir bir turizm türü: 'Ekoturizm' (Dünyadan ve Türkiye'den örnekler)*, İstanbul Teknik Üniversitesi Konut Araştırma Ve Uygulama Merkez Müdürlüğü, İstanbul. <http://www.kaem.itu.edu.tr/docs/librariesprovider124/default-document-library/ekoturizm.pdf?sfvrsn=0>
- Akova, O. (2006). Yerel halkın turizmin etkilerini algılamalarına ve tutumlarına yönelik bir araştırma. *Akademik İncelemeler Dergisi*, 2 (1): 1-34. <https://dergipark.org.tr/en/pub/akademikincelemeler/issue/1558/19165>
- Allison, P. D. (1999). *Multiple regression: A primer*. Pine Forge Press. <https://trove.nla.gov.au/work/8899441?q&versionId=10302679>
- Andereck K. L., & Vogt C. A. (2000). The relationship between residents' attitudes toward tourism and tourism development options. *Journal of Travel Research*, (39), 27-36. <https://journals.sagepub.com/doi/abs/10.1177/004728750003900104>
- Baker, J. E. (1997). Development of a model system for touristic hunting revenue collection and allocation. *Tourism Management*, 18 (5), 273-286. [https://doi.org/10.1016/S0261-5177\(97\)00016-2](https://doi.org/10.1016/S0261-5177(97)00016-2)
- Balmford, A., Green, J. M., Anderson, M., Beresford, J., Huang, C., Naidoo, R., Walpole, M., Manica, A. (2015). Walk on the wild side: estimating the global magnitude

- of visits to protected areas. *PLoS Biol*, 13 (2). <https://doi.org/10.1371/journal.pbio.1002074>
- Buckley, R. (2002). Tourism ecolabels. *Annals of Tourism Research*, 29 (1), 183-208. [https://doi.org/10.1016/S0160-7383\(01\)00035-4](https://doi.org/10.1016/S0160-7383(01)00035-4)
- Butler, R. W. (1980). The concept of a tourist area cycle of evolution: Implications for management of resources. *Canadian Geographer*, 24, 5-12. <https://doi.org/10.1111/j.1541-0064.1980.tb00970.x>
- Chang, L. F. (2010). The effects of moral emotions and justifications on visitors' intention to pick flowers in a forest recreation area in Taiwan. *Journal of Sustainable Tourism*, 18 (1), 137-150. <https://doi.org/10.1080/09669580903215154>
- Christ, C., Hillel, O., Matus, S. & Sweeting, J. (2004) *Tourism and biodiversity: mapping tourism's global footprint*. Washington, DC: United Nations Environment Program and Conservation International. <https://wedocs.unep.org/bitstream/handle/20.500.11822/9399/Tourism%20and%20Biodiversity%20Mapping%20Tourism's%20Global%20Footprint2003649.pdf?sequence=2&isAllowed=y>
- Ezebilu, E. E. & Mattsson, L. (2010). Socio-economic benefits of protected areas as perceived by local people around Cross River National Park, Nigeria. *Forest Policy and Economics*, 12, p. 189 -193. <https://doi.org/10.1016/j.forpol.2009.09.019>
- Fennell, D.A. (2015). *Ecotourism* (Fourth edition). Routledge. London and New York. <https://www.worldcat.org/title/ecotourism/oclc/891449696>
- Freire, P.M.O., & Almeida, F.A.B., (2019). Ecotourism, critical environmental education and ecological subject's formation: convergences and challenges, *Revista Brasileira de Ecoturismo*, 11 (4), 561-587 <https://doi.org/10.34024/rbecotur.2018.v11.6697>
- Gan, J. E., Nair, V., & Hamzah, A. (2019). The critical role of a lead institution in ecotourism management: A case of dual governance in Belum-Temengor, Malaysia. *Journal of Policy Research in Tourism, Leisure and Events*, 11(2), 257-275. <https://doi.org/10.1080/19407963.2018.1516076>
- Green, R. J., & Higginbottom, K. (2000). The effects of non-consumptive wildlife tourism on free-ranging wildlife: A review. *Pacific Conservation Biology* 6 (1), 183-197. <https://www.publish.csiro.au/pc/PC000183>
- Gutiérrez, K.S.R, Macias, A.E.S, & Pionce, M.S.P., (2019) Orchids As A Tourist Resource In The Southern Area Of Manabi Province, 2019, *Rev. Latino-Am. Turismologia / Relat., Juiz de Fora (Brasil)*, 5, 1-13 <https://doi.org/10.34019/2448-198X.2019.v5.14032>
- Gursoy, D., Boğan, E., Dedeoğlu, B. B., & Çalışkan, C. (2019). Residents' perceptions of hotels' corporate social responsibility initiatives and its impact on residents' sentiments to community and support for additional tourism development. *Journal of Hospitality and Tourism Management*, 39, 117-128. <https://doi.org/10.1016/j.jhtm.2019.03.005>
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2005). *Multivariate data analysis (6th ed.)*. New Jersey: Prentice Hall. [https://is.muni.cz/el/1423/podzim2017/PSY028/um/Hair\\_Multivariate\\_data\\_analysis\\_7th\\_revised.pdf](https://is.muni.cz/el/1423/podzim2017/PSY028/um/Hair_Multivariate_data_analysis_7th_revised.pdf)
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: The Guilford Press. <https://www.amazon.com/Introduction-Mediation-Moderation-Conditional-Analysis/dp/1609182308>
- Heyneman, S. (2019). *Community perceptions of ecotourism from Arslanbob, Kyrgyz Republic*. University of Michigan, School for Environment and Sustainability, Master thesis of Science <https://deepblue.lib.umich.edu/handle/2027.42/148659>
- Honey, M. (2008). *Ecotourism and sustainable development*. Washington: Island Press. <https://www.worldcat.org/title/ecotourism-and-sustainable-development-who-owns-paradise/oclc/758390011>
- Kalaoum, F., & Santiago P.E.S., (2020). Tourism In The Favela Of Vidigal: Community Based Or Market Based?, *Revista Anais Brasileiros De Estudos Turistikos / Abet*, 10, 1-13. <https://doi.org/10.34019/2238-2925.2020.v10.27307>
- Kim, K., Uysal, M., & Sirgy, M. J. (2013). How does tourism in a community impact the quality of life of community residents?. *Tourism Management*, 36, 527-540. <https://doi.org/10.1016/j.tourman.2012.09.005>
- Küçük, F., Güllü, İ., Güçlü, S. S., Çiftçi, Y., & Erdoğan, Ö. (2013). A new Pseudophoxinus (Teleostei, Cyprinidae) species from Southwestern Anatolia, with remarks on the distribution of the genus in western Anatolia. *ZooKeys*, (320), 29. [doi: 10.3897/zookeys.320.4447](https://doi.org/10.3897/zookeys.320.4447)
- Landell-Mills, N. & Porras, I. (2002). *Silver bullet or fools' gold? A global review of markets for forest environmental services and their impact on the poor*. London: iED. <https://core.ac.uk/download/pdf/48032188.pdf>
- Lankford, S. V., & Howard, D. R. (1994). Developing a tourism impact attitude scale. *Annals of Tourism Research*, 21, 121-139. [https://doi.org/10.1016/0160-7383\(94\)90008-6](https://doi.org/10.1016/0160-7383(94)90008-6)
- Lee, T. H., & Jan, F. H. (2019). Can community-based tourism contribute to sustainable development? Evidence from residents' perceptions of the sustainability. *Tourism Management*, 70, 368-380. <https://doi.org/10.1016/j.tourman.2018.09.003>
- Long, P. T., Perdue, R. R., & Allen, L. (1990). Rural resident tourism perceptions and attitudes by community level of tourism. *Journal of Travel Research*, 28 (1), 3-9. <https://doi.org/10.1177/004728759002800301>
- McGehee, N. G., & Andereck, K. L. (2004). Factors predicting rural residents' support of tourism. *Journal of Travel Research*, 43 (2), 131-140. <https://doi.org/10.1177/0047287504268234>
- Mu, Y., Nepal, S. K., & Lai, P. H. (2019). Tourism and sacred landscape in Sagarmatha (Mt. Everest) National Park, Nepal. *Tourism Geographies*, 21(3), 442-459. <https://doi.org/10.1080/14616688.2018.1558454>
- Nunnally, J. C. (1978). *Psychometric theory (2nd ed.)*. New York: McGraw-Hill.

- [https://www.scirp.org/\(S\(i43dyn45teexjx455qit3d2q\)\)/reference/ReferencesPapers.aspx?ReferenceID=1867797](https://www.scirp.org/(S(i43dyn45teexjx455qit3d2q))/reference/ReferencesPapers.aspx?ReferenceID=1867797)
- Okuyucu, A., & Somuncu, M. (2012). Kültürel mirasın korunması ve turizm amaçlı kullanılmasında yerel halkın algı ve tutumlarının belirlenmesi: Osmaneli ilçe merkezi örneği. *Ankara Üniversitesi Çevre Bilimleri Dergisi*, 4 (1), 37-51. <https://dergipark.org.tr/en/download/article-file/565324>
- Ongun, U., Gövdere, B., & Durgun Kaygısız, A. (2015). Rural tourism potential evaluation of burdur province: Problems and solution proposals. *Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 7(12), 99-116. <https://dergipark.org.tr/en/download/article-file/181852>
- Osman, T., Shaw, D., & Kenawy, E. (2018). Examining the extent to which stakeholder collaboration during ecotourism planning processes could be applied within an Egyptian context. *Land Use Policy*, 78, 126-137. <https://doi.org/10.1016/j.landusepol.2018.06.043>
- Özçelik, H., Çınbilgel, İ., Muca, B., Koca, A., Tavuç, İ., & Bebekli, Ö. (2014). Burdur ili karasal ve iç su ekosistem çeşitliliği, koruma ve izleme çalışmaları. *SDÜ Fen Dergisi*, 9 (2):12-43. <https://dergipark.org.tr/en/download/article-file/116403>
- Pretty, J., & Ward, H. (2001). Social capital and the environment. *World development*, 29 (2), 209-227. [https://doi.org/10.1016/S0305-750X\(00\)00098-X](https://doi.org/10.1016/S0305-750X(00)00098-X)
- Puri, M., Karanth, K. K., & Thapa, B. (2019). Trends and pathways for ecotourism research in India. *Journal of Ecotourism*, 18(2), 122-141. <https://doi.org/10.1080/14724049.2018.1474885>
- Ross, S., & Wall, G. (1999). Evaluating ecotourism: the case of North Sulawesi, Indonesia. *Tourism Management*, 20(6), 673-682. [https://doi.org/10.1016/S0261-5177\(99\)00040-0](https://doi.org/10.1016/S0261-5177(99)00040-0)
- Santos, M.T., Nova de Melo, I.B., & Cardoso-Leite, E., (2019). Analysis of the potential and demand for visitation in Capão Bonito National Forest (SP, Brazil), *Revista Brasileira de Ecoturismo*, 12(1), 36-54. <https://www.researchgate.net/deref/http%3A%2F%2Fdx.doi.org%2F10.34024%2Frbecotur.2019.v12.6721>
- Scheyvens, R. (1999). Ecotourism and the empowerment of local communities. *Tourism Management* 20 (2), 245-249. <https://www.sciencedirect.com/science/article/pii/S0261517798000697>
- Stronza, A. (2007). The economic promise of ecotourism for conservation. *Journal of Ecotourism*, 6(3), 210-230. <https://doi.org/10.2167/joe177.0>
- TIES. (2015). What is Ecotourism? <http://www.ecotourism.org/what-is-ecotourism>, Accessed date: January 31, 2020.
- Tosun, C. (2002). Host perceptions of impacts: A comparative tourism study. *Annals of Tourism Research*, 29 (1), 231-253. <http://www.sciencedirect.com/science/article/pii/S016738301000391>
- Tretiakova, T. N., Brankov, J., Petrović, M. D., Syromiatnikova, Y. A., Radovanović, M. M., & Yakovlev, A. M. (2019). Tourism and natural environment in the NP Taganay (Russia)-habits and perceptions of the visitors. *Geo Journal of Tourism and Geosites*, 25 (2), 595-608. <https://doi.org/10.30892/gtg.25225-383>
- Wang, Y., & Pfister, R. E. (2008). Residents' attitudes toward tourism and perceived personal benefits in a rural community. *Journal of Travel Research*, 47 (1), 84-93. <https://doi.org/10.1177/0047287507312402>
- Wolf, I. D., Croft, D. B., & Green, R. J. (2019). Nature conservation and nature-based tourism: A Paradox?. *Environments*, 6 (9), 104. [doi:10.3390/environments6090104](https://doi.org/10.3390/environments6090104)
- WTTC, (2020). <https://www.wttc.org/>, Accessed date: January 31, 2020.
- Vada, S., Prentice, C., & Hsiao, A. (2019). The influence of tourism experience and well-being on place attachment. *Journal of Retailing and Consumer Services*, 47, 322-330. <https://doi.org/10.1016/j.jretconser.2018.12.007>
- Yılmaztürk, A., Yılmaz, T., Berberoğlu, E., & Ertaş, S. (2013). *Burdur ili doğa turizmi master planı (2013-2023)*. T.C. Orman ve Su İşleri Bakanlığı, Doğa Koruma ve Milli Parklar Genel Müdürlüğü, VI. Bölge Müdürlüğü, Burdur Şube Müdürlüğü. [http://bolge6.ormansu.gov.tr/bolge/Files/duyurular/burdur\\_ili\\_doga\\_turizmi\\_master\\_plani.pdf](http://bolge6.ormansu.gov.tr/bolge/Files/duyurular/burdur_ili_doga_turizmi_master_plani.pdf)
- Yoon Y., Gursoy D., Joseph S., & Chen J. S. (2001). Validating a tourism development theory with structural equation modeling. *Tourism Management*, 22 (1), 363-372. <https://www.sciencedirect.com/science/article/pii/S0261517700000625>
- Zamani-Farahani, H. (2016). Host attitudes toward tourism: A study of Sareyn Municipality and local community partnerships in therapeutic tourism. *Journal of Tourismology* 2, 16-34. <https://dergipark.org.tr/en/download/article-file/227016>
- Zhang, H., & Lei, S. L. (2012). A structural model of residents' intention to participate in ecotourism: The case of a wetland community. *Tourism Management*, 33(4), 916-925. <https://doi.org/10.1016/j.tourman.2011.09.011>

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