

# Local Residents' and Foreign Tourists' Intention towards Ecotourism: A Research in the Antalya City

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## Abstract

*The main aim of this research is to investigate local residents' and foreign tourists' intentions to participate in ecotourism practices by using attitudes towards ecotourism, likeability of tourist landscapes, intention to participate in ecotourism, and environmental knowledge in ecotourism. Local residents and foreign tourists took part in the research. According to the findings, local residents and foreign tourists have high averages in terms of attitude towards ecotourism, likeability of tourist landscapes, and environmental knowledge, but, have low averages in terms of their intention to participate in ecotourism. Local residents have more positive attitude towards ecotourism and higher environmental knowledge levels than foreign tourists.*

**Keywords:** Residents, foreign tourists, ecotourism, Antalya, Turkey

## Introduction

By years, international tourism flows have shown a continuous increase except crises or unexpected negative situations. This time we face another global problem called COVID-19. In the year of 2019, travel and tourism industry contributed 10.4 percent to global GDP ([www.wttc.org/Research/Economic-Impact](http://www.wttc.org/Research/Economic-Impact)) and top 10 visited countries in the world were; France (89.4 million), Spain (83.7 million), United States (79.3 million), China (65.7 million), Italy (64.5 million), Turkey (51.2 million), Mexico (45 million), Thailand (39.8 million), Germany (39.6 million), and United Kingdom (39.4 million), respectively (<https://worldpopulationreview.com/country-rankings/most-visited-countries/>).

Allied Market Research estimates international ecotourism market size as 181.1 billion American Dollars in the year of 2019 and expects 333.8 billion American Dollars by 2027 ([www.alliedmarketresearch.com/eco-tourism-market-Ao6364](http://www.alliedmarketresearch.com/eco-tourism-market-Ao6364)). Because of the development potential of global ecotourism (grows annually by 10-15 percent), some countries have more interest in this market such as Malaysia, China, and Turkey ([www.globaldata.com/global-eco-tourism-takes-off-with-35-of-holiday-makers/](http://www.globaldata.com/global-eco-tourism-takes-off-with-35-of-holiday-makers/)). The main aim of this research is to investigate local res-

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idents' and foreign tourists' intentions to participate in ecotourism practices by using attitudes towards ecotourism, likeability of tourist landscapes, intention to participate in ecotourism, and environmental knowledge in ecotourism dimensions. The research was done in Düden Waterfall which is 8 km far away from Antalya city center.

## Theoretical Background

### Ecotourism

Ecotourism can be evaluated as one of the important sustainable development tools (Wood, 2002). As a term, ecotourism concept may be used instead of sustainable tourism, but in fact ecotourism mostly concentrates on environmental side and sustainable tourism focuses on both economic, social, and environmental results of the travel and tourism industry ([www.tripsavvy.com/sustainable-tourism-ecotourism-differences-5185311](http://www.tripsavvy.com/sustainable-tourism-ecotourism-differences-5185311)). In general, both sustainable tourism and ecotourism are trying to prevent negative effects of mass tourism. Because of the increasing demand especially towards nature, ecotourism activities are more popular than before (Sangpikul, 2017). Citing Ziffer (1989), Mirsanjari (2012) has underlined that within the 'ecotourism management approach', participation of local residents and community development play a significant role.

Regarding ecotourism, it is possible to find several academic studies. Some studies focus on ecotourism as a learning tool (Mondino, Beery, 2019), role of ecotourism in sustainable tourism development (Salman et al., 2020), ecotourism potential of destinations (Safarabadi, 2016; Güler, 2021), carrying capacity within ecotourism (Butarbutar, Soemarno, 2013; Zhao, Jiao, 2019) planning and design (Shang et al., 2020; Sisriany, Furuya, 2020; Aryal et al., 2019; Cohen, Silva, 2010), research topics benefiting from meta-analysis (Wondirad, 2019), tourists' intention to participate in ecotourism (Pham, Khanh, 2020; Ren et al., 2021; Lee et al., 2020; Handriana, Ambara, 2016), intentions of locals/residents to participate in ecotourism (Wu, Chen, 2018; Landra et al., 2018; Mogoria et al., 2018; 2020; Lim et al., 2017; Wanga et al., 2013; Menon, 2019; Adeleke, 2015; Zhang, Lei, 2012).

Mondino and Beery (2019) have investigated ecotourism as a learning tool benefiting from a case study and have found out that ecotourism activities supported collaboration between stakeholders, but because of insufficient environmental education (language, method, and course related problems at higher governmental levels) there were still negative perceptions of the sides.

Salman et al. (2020) have investigated the role of ecotourism in sustainable tourism development by analysing 22 articles and have underlined that ecotourism gave economically, socially, and environmentally valuable input to destinations with the help of providing more jobs and investments as well as preserving the culture, environment, and natural resources.

Safarabadi (2016) has conducted research about the ecotourism potential of coastal tourism in Qeshm Island /Iran. The results have revealed that in terms of ecotourism attractions, Star valleys (aesthetic value and economic), Hara Marine Forests (science), Portuguese Castle (culture), and Gold Wells have high scores, but they have a productivity problem. Güler (2021) has analysed ecotourism potential of Ordu/Turkey province, benefiting from secondary data and Ordu Province/Turkey Nature Master Plan (2013-2023). According to the data, Ordu province/Turkey has enough ecotourism especially in plateau tourism and other forms of water-based activities (such as underwater diving, rafting etc.) have been suggested by the researcher.

Butarbutar and Soemarno (2013) have analysed environmental effects of ecotourism theoretically in terms of ecological, physical, social, and economic capacities, mentioned both positive and negative impacts of ecotourism, and underlined the importance of cooperation between both sides (governments, private sectors, local communities, researchers, and tourists). Zhao and Jiao (2019) have investigated tourism environmental carrying capacity of Pindingshan City/China. The results have showed that the carrying capacity of Pindingshan City/China was overloaded and there were problems in preserving the resources and the management system.

Shang et al. (2020) have analysed ecotourism planning and design of Tianjin by conducting SWOT analysis. According to the results, transportation, water, animal, plant, and ecotourism resources were found as strengths; and theme, staff quality as weaknesses; and government support, combination of local culture with tourism, and increased demand as opportunities and competition among peers, and different tourist demands as threats. Sisriany and Furuya (2020) have investigated ecotourism policy research trends in Indonesia, Japan, and Australia benefiting from scientometrics analysis (Totally 430 academic studies). Related with ecotourism, top keywords included conservation for Indonesia, biodiversity for Japan, and management for Australia. In addition to these, Australia and Japan have similar priority on ecotourism policy, but Indonesia on environmental science. Aryal et al. (2019) have analysed ecotourism policy in Nepal. Evaluations have shown that Nepal Government mostly focused on increasing tourist numbers without looking at the carrying capacity and environmental results. Cohen and Silva (2010) have conducted a study on collaborative ecotourism strategies and recreational activities in natural parks of Rio de Janeiro. The findings have underlined that collaborative ecotourism strategies were not enough, and more strategic vision was needed.

Wondirad (2019) has carried out research on ecotourism through meta-analysis in order to understand the past, present, and future of ecotourism development. The results coming from 470 articles revealed that by years there was an increasing demand of researchers on ecotourism topic. Community participation, empowerment and attitude, planning and development of ecotourism, motivation, perception and behaviours of ecotourists, ecotourism and biodiversity conservation and impact of ecotourism (economical, environmental and socio-cultural impacts), service quality, visitor experience, ecotourism marketing, consumer ethics and the role of local guides were investigated by researchers.

Pham and Khanh (2020) have investigated tourists' intention to visit destinations. The results coming from 431 tourists have revealed that environmental concern, future time perspective and image of eco destination were very important in terms of tourists' intention. Ren et al. (2021) have carried out a study regarding the effects of environmental knowledge, environmental perceived value, perceived consumption effectiveness, and environmental attitudes on tourist behaviours. The results coming from the sample consisting of 406 tourists have underlined that environmental knowledge is very important and has a positive effect on environmental attitudes, environmental perceived value, and perceived consumption effectiveness. Lee et al. (2020) have conducted a study about the effects of perceived value of ecosystem services on tourists' behavioural intentions and have found out that perceived value of ecosystem services have positive effect on both tourists' behaviour and environmental concerns. Handriana and Ambara (2016) have investigated responsible environmental behaviour intention of tourists in Indonesia. The finding coming from 210 tourists have underlined that after experiencing and realizing the visit, tourists have a good perception of ecotourism.

Wu and Chen (2018) have analysed factors affecting behavioural intentions of residents to participate in ecotourism. Findings have underlined that residents' attitudes, perceived

behavioural control, and social benefits have high correlations with their behavioural intentions. Landra et al. (2018) have carried out research about the possible effects of environmental knowledge, and economic, social, and cultural benefits on resident's participation intentions. The results have indicated that there was a positive and significant relationship between attitudes of residents and participation intention. About environmental knowledge and economic benefits, there was a partial mediation in terms of intentions of residents, whereas complete mediation for social and cultural benefits. Mogoria et al. (2018) have conducted research about gender willingness to participate in co-management of ecotourism resources. Findings have revealed that more support was required for gender participation. In order to realize this aim, more targeted trainings and meetings, solving language problems, and requiring more budgets were suggested. Lim et al., (2017) have investigated community support on economic, socio-cultural, and environmental impacts of tourism. According to the results, socio-cultural and environmental impacts have significant and positive correlation from community perspectives. Wanga et al. (2013) have carried out a study on environmental knowledge and ecotourism attitude of local youths in educational schools. The findings have shown that environmental knowledge of residents strongly affects attitudes towards ecotourism. Menon (2019) has carried out research about the factors impacting host community participation in ecotourism. The results have demonstrated that environmental knowledge and perceived economic impact have more effect on participation. Adeleke (2015) has investigated residents' attitude towards ecotourism and found out that their intentions are influenced by income, time, and transportation, unemployment, and illiteracy factors. Zhang and Lei (2012) have conducted a study about the relationship among participation intention, environmental knowledge, and attitudes towards ecotourism. The results have revealed that environmental knowledge of residents is very critical and has a positive impact on attitudes.

## Research Methodology

A case study is a research methodology that has commonly used in social sciences. It is a research strategy and an empirical inquiry that investigates a phenomenon within its real-life context. A case study research can be single or multiple case studies, includes quantitative evidence, relies on multiple sources of evidence and benefits from the prior development of the theoretical propositions (<https://www.pressacademia.org/definition-of-case-study>). In this study, local residents' and foreign tourists' intentions of those, who participate in ecotourism practices, were investigated (in Düden Waterfall which is 8 km far away from Antalya city center) by using attitudes towards ecotourism, likeability of tourist landscapes, intention to participate in ecotourism and environmental knowledge in ecotourism dimensions. 222 local residents and 109 foreign tourists joined the research. Sample was determined by the 'convenience sampling' method. The research was conducted between December and June in 2021.

The constructs are all related to the Düden Waterfall and are measured by a questionnaire on a five point Likert scale with 1 for "strongly disagree", 3 for "neutral" and 5 for "strongly agree". The scale, which was used in this study, was taken from the Zhang and Lei (2012) study.

For demographic characteristics of the sample, percentage and frequency analysis was done. Additionally, arithmetic mean and standard deviation values of ecotourism scale and dimensions were calculated. For validity of the scale, factor analysis and for reliability, Cronbach Alpha values were taken into consideration. Lastly, t-test and Anova tests were done in order to show the differences of ecotourism levels of participants.

## Research Findings

When the distribution of tourists according to their local/foreign status was examined, it was determined that 67.1% (n= 222) were local residents and 32.9% (n= 109) were foreign tourists (Table 1).

In terms of gender distribution, it is clear that 68.6% (n= 227) of the total 331 people are female and 31.4% (n= 104) are male. When the distribution of participants by age is examined, 35.0% (n= 116) are in the 31-40 age range, 26.0% (n= 86) are in the 21-30 age range, it is seen that 22.4% (n= 74) are in the age group 51 and older, 12.4% (n= 41) are in the 41-50 age range and 4.2% (n= 14) are in the 20 and under age group. When the marital status of the participants was examined, it was determined that 72.5% (n= 240) were married and 27.5% (n= 91) were single.

When the distribution of the participants in the research according to their educational status is examined, it is seen that 23.6% (n= 78) have primary school, 24.2% (n= 80) high school, 42.6% (n= 141) associate degree/undergraduate and 9.7% (n= 97) were found to have received postgraduate education.

According to the data on the occupations, 6.3% (n= 21) are officers and 26.6% (n= 78) are in private sector, it is seen that 20.5% (n= 68) are self-employed, 6.3% (n= 21) are retired, 4.8% (n= 16) are unemployed, 32.0% (n= 106) are housewives and 6.3% (n= 21) are students.

In terms of income levels, 16.6% (n= 55) receive 2500 TL and less; 33.2% (n= 110) of them earn between 2501-5000 TL; it is seen that 11.5% (n= 38) have an income between 5001-7500 TL and 3.3% (n= 11) have an income of 7501 TL and above.

**Table 1.** Information on Demographic Characteristics of Tourists Participating in the Research

	Number (n)	Percentage (%)
<b>Local /Foreign</b>		
Local	222	67,1
Foreign	109	32,9
Total	331	100
<b>Gender</b>		
Female	227	68,6
Male	104	31,4
Total	331	100
<b>Age</b>		
20 and under	14	4,2
21-30	86	26,0
31-40	116	35,0
41-50	41	12,4
51 and above	74	22,4
Total	331	100
<b>Marital Status</b>		
Single	91	27,5
Married	240	72,5
Total	331	100
<b>Education Level</b>		
Primary Education	78	23,6
High School	80	24,2
University	141	42,6
Postgraduate	32	9,7
Total	331	100

	Number (n)	Percentage (%)
<b>Occupation</b>		
Officer	21	6,3
Private Sector	78	26,6
Self-employment	68	20,5
Retired	21	6,3
Unemployed	16	4,8
Housewife	106	32,0
Student	21	6,3
Total	331	100
<b>Monthly Income</b>		
2500 and under	55	16,6
2501-5000 Lira	110	33,2
5001-7500 Lira	38	11,5
7501 and above	11	3,3
Total	214	100

**Table 2. Arithmetic Mean and Standard Deviation Values for Ecotourism Scale Expressions**

	Arithmetic Means	Standard Deviation
Attitudes towards Ecotourism (15statements)	4,09	0,53
Düden Waterfall promotes public environmental awareness.	4,11	1,06
The unique natural beauty of Düden Waterfall offers the public beautiful shades of green and blue.	4,62	0,75
Ecological monitoring should be conducted continuously to formulate appropriate management measures.	4,32	0,96
Part of the revenue from Düden Waterfall should finance the promotion of environmental conservation.	4,51	0,78
Düden Waterfall encourages public participation in conservation actions.	3,95	0,99
Düden Waterfall provides important habitats for animals.	3,96	1,08
Düden Waterfall should avoid interfering with the habitat of local animals and plants.	4,14	1,09
Düden Waterfall should be based on enjoying and appreciating nature or cultural features.	4,36	0,87
Protection of Düden Waterfall should focus on environmental education.	4,40	0,80
Walking and enjoying the nature is appropriate for Düden Waterfall.	4,10	1,07
Düden Waterfall should implement a user fees system.	2,83	1,44
The conservational function of Düden Waterfall outweighs their economic function.	3,77	1,23
The visit of protected areas should be made between certain time periods.	4,29	0,90
Unused local buildings should be reutilized as recreational facilities as a priority to avoid excess construction.	4,10	0,98
Likeability of Tourist Landscapes (6statements)	4,44	0,63
I like Güver Canyon.	4,41	0,91
I like Uçansu Waterfalls.	4,45	0,88
I like Ancient Royal Road.	4,31	0,92
I like Old Town.	4,55	0,85
I like Kocain Cave.	4,35	0,91
I like Hadrian Gate.	4,59	0,68
Intention to Participate in Ecotourism (3statements)	2,67	1,29
I would attend discussion meetings for Düden Waterfall development in Antalya.	2,68	1,42

	Arithmetic Means	Standard Deviation
I would join management training programs for Düden Waterfall development in Antalya.	2,87	1,46
I would serve on the management committee for Düden Waterfall in Antalya.	2,47	1,46
Environmental Knowledge (3 statements)	4,12	0,66
The source of the Düden Waterfall is from Kepez Hydroelectric Power Plant.	3,35	1,13
A waterfall is an area where water flows over a vertical drop or a series of steep drops in the course of a stream or river.	4,44	0,99
Düden Waterfall is a natural asset that has become the symbol of Antalya.	4,59	0,73
General Average	4,02	0,47

In general, when the level of perception and attitude of participants towards ecotourism is considered, high averages are encountered ( $\bar{X}$ = 4.02; sd= 0.47).

Considering the answers given by the sample to the statements regarding the attitude towards ecotourism variable, it is seen that the average is high ( $\bar{X}$ = 4.09; sd= 0.53). The expressions with the highest mean in the dimension; it is seen that *“The unique natural beauty of Düden Waterfall offers the public beautiful shades of green and blue”* ( $\bar{X}$  = 4,62) and *“Part of the revenue from Düden Waterfall should finance the promotion of environmental conservation”* ( $\bar{X}$  = 4,51). The expressions with the lowest mean in the dimension are; it is seen that *“Düden Waterfall should implement a user fees system”* ( $\bar{X}$  = 2,83) and *“The conservational function of Düden Waterfall outweighs their economic function”* ( $\bar{X}$  = 3,77).

When the answers given by the sample to the expressions related to the likeability of tourist landscapes dimension of the ecotourism variable are examined, it is seen that there are high averages ( $\bar{X}$  = 4,44; sd= 0,63). Regarding the mean of the expressions, it is seen that the values *“I like Hadrian Gate”* ( $\bar{X}$  = 4,59) and *“I like Ancient Royal Road”* ( $\bar{X}$  = 4,31).

In terms of expressions regarding the intention to participate in ecotourism, it is seen that the values are below the average ( $\bar{X}$  = 2,67; sd = 1,29). It is seen that the expressions' mean are; *“I would join management training programs for Düden Waterfall development in Antalya”* ( $\bar{X}$  = 2,87), *“I would attend discussion meetings for Düden Waterfall development in Antalya”* ( $\bar{X}$  = 2,68), and *“I would serve on the management committee for Düden Waterfall in Antalya”* ( $\bar{X}$  = 2,47).

About environmental knowledge dimension, it is seen that there are high averages ( $\bar{X}$ = 4,12; sd= 0,66). The averages of expressions are *“Düden Waterfall is a natural asset that has become the symbol of Antalya”* ( $\bar{X}$  = 4,59), *“A waterfall is an area where water flows over a vertical drop or a series of steep drops in the course of a stream or river”* ( $\bar{X}$  = 4,44) and *“The source of the Düden Waterfall is from Kepez Hydroelectric Power Plant”* ( $\bar{X}$  = 3,35).

**Table 3.** Ecotourism Scale Factor Analysis Results

Factor 1: Attitudes towards Ecotourism
Alpha ( $\alpha$ )= 0,81 %; Variance: 24,293
Düden Waterfall promotes public environmental awareness.
The unique natural beauty of Düden Waterfall offers the public beautiful shades of green and blue.
Ecological monitoring should be conducted continuously to formulate appropriate management measures.
Part of the revenue from Düden Waterfall should finance the promotion of environmental conservation.
Düden Waterfall encourages public participation in conservation actions.
Düden Waterfall provide important habitats for animals.

Düden Waterfall should avoid interfering with the habitat of local animals and plants.
Düden Waterfall should be based on enjoying and appreciating nature or cultural features.
Protection of Düden Waterfall should focus on environmental education.
Walking and enjoying the nature is appropriate for Düden Waterfall.
Düden Waterfall should implement a user fees system.
The conservational function of Düden Waterfall outweighs their economic function.
The visit of protected areas should be made between certain time periods.
Unused local buildings should be reutilized as recreational facilities as a priority to avoid excess construction.
<b>Factor 2: Likeability of Tourist Landscapes</b>
<b>Alpha (<math>\alpha</math>)= 0,83 %; Variance: 10,236</b>
I like Güver Canyon.
I like Uçansu Waterfalls.
I like Ancient Royal Road.
I like Old Town.
I like Kocain Cave.
I like Hadrian Gate.
<b>Factor 3: Intention to Participate in Ecotourism</b>
<b>Alpha (<math>\alpha</math>)= 0,86 %; Variance: 8,065</b>
I would attend discussion meetings for Düden Waterfall development in Antalya.
I would join management training programs for Düden Waterfall development in Antalya.
I would serve on the management committee for Düden Waterfall in Antalya.
<b>Factor 4: Environmental Knowledge</b>
<b>Alpha (<math>\alpha</math>)= 0,65 %; Variance: 6,695</b>
The source of the Düden Waterfall is from Kepez Hydroelectric Power Plant.
A waterfall is an area where water flows over a vertical drop or a series of steep drops in the course of a stream or river.
Düden Waterfall is a natural asset that has become the symbol of Antalya.
<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy: ,924</b>
<b>Approx. Chi-Square : 11973,788 df : 231 Sig.: ,000</b>
<b>General Ecotourism Scale Alpha (<math>\alpha</math>)= 0,89</b>

When the ecotourism factor table is examined, it is seen that the factor with the highest explanation is “Attitudes towards Ecotourism” and the factor with the lowest explanatory power is “Environmental Knowledge”. In addition, the results of the reliability analysis applied to the ecotourism scale are also included in the table 3. Accordingly, the reliability coefficients of the sub-dimensions of the ecotourism scale are; attitude towards ecotourism sub-dimension reliability coefficient  $\text{Alpha}(\alpha) = 0,81$ ; likeability of tourist landscapes sub-dimension reliability coefficient  $\text{Alpha}(\alpha) = 0,83$ ; intention to participate in ecotourism sub-dimension reliability coefficient  $\text{Alpha}(\alpha) = 0,86$  and environmental knowledge sub-dimension reliability coefficient  $\text{Alpha}(\alpha) = 0,65$ . The reliability coefficient of the general ecotourism level scale is identified as  $\text{Alpha}(\alpha) = 0,89$ .

The level of ecotourism measured by 27 expressions in the survey form was a subject for factor analysis. As a result of the analysis, 4 factors with 49.289 % explanatory variables were reached. The first factor explains 24.293% of the total variance, the second factor 10.236 % of the total variance, the third factor 8.065% of the total variance and the fourth factor 6.695 % of the total variance. Factors obtained:

- FACTOR 1: Attitudes towards Ecotourism
- FACTOR 2: Likeability of Tourist Landscapes
- FACTOR 3: Intention to Participate in Ecotourism
- FACTOR 4: Environmental Knowledge

As seen in Table 4, the t-test was applied to determine whether the arithmetic mean of the ecotourism scale dimensions shows a significant difference among the sample. Due to the independent group “t” test, the difference between the attitudes towards ecotourism ( $t= 3,520$ ;  $p<.05$ ) and environmental knowledge ( $t=2.695$ ;  $p<.05$ ) dimensions according to whether the sample was found to be statistically significant.

**Table 4.** T-Test and Results Showing the Differences of the Attitudes of the Participants towards Ecotourism

Demographic Feature	Dependent Variable	Groups	Art. Mean	Std. Dev.	Levene's Test for Equality of Variances			t	df
						F	Sig.		
Country	Attitudes towards Ecotourism	Local	4,16	,5419	Equal Not equal	,626	,429	3,445	329
		Foreign	3,95	,5086					
	Likeability of Tourist Landscapes	Local	4,46	,6533	Equal Not equal	,004	,947	,633	329
		Foreign	4,41	,6080					
Intention to Participate in Ecotourism	Local	2,70	1,303	Equal Not equal	,190	,663	,471	329	
	Foreign	2,63	1,270						
Environmental Knowledge	Local	4,19	,6433	Equal Not equal	1,036	,309	2,774	329	
	Foreign	3,98	,7003						

As seen in Table 5, t-test was applied to determine whether the arithmetic mean of the ecotourism scale dimensions shows a significant difference by the gender of the sample. Due to the independent group “t” test, the difference between the likeability of tourist landscapes ( $t= 1,928$ ;  $p<.05$ ), intention to participate in ecotourism ( $t= -3,126$ ;  $p<.05$ ) and environmental knowledge ( $t= -2,428$ ;  $p<.05$ ) dimensions by the sample’s’ gender was found to be statistically significant.

**Table 5.** T-Test and Results Showing the Differences of Participants' Levels of Ecotourism by Gender

Demographic Feature	Dependent Variable	Groups	Art. Mean	Std. Dev.	Levene's Test for Equality of Variances			t	df
						F	Sig.		
Gender	Attitudes towards Ecotourism	Female	4,10	,4992	Equal Not equal	3,255	,072	,150	329
		Male	4,09	,6220					
	Likeability of Tourist Landscapes	Female	4,49	,6247	Equal Not equal	,514	,474	1,966	329
		Male	4,34	,6584					
	Intention to Participate in Ecotourism	Female	2,52	1,267	Equal Not equal	,000	,990	-3,145	329
		Male	3,00	1,288					
	Environmental Knowledge	Female	4,06	,6656	Equal Not equal	,772	,380	-2,423	329
		Male	4,25	,6617					

As seen in Table 6, t-test was applied to determine whether the arithmetic mean of the ecotourism scale dimensions shows a significant difference according to the marital status of the sample. Due to the independent group “t” test, the difference between the intention of the sam-

ple to participate in ecotourism ( $t= 4,810$ ;  $p<.05$ ) by their marital status was found to be statistically significant.

**Table 6.** *T-test and Results Showing the Difference of Participants' Ecotourism Levels by Marital Status*

Demographic Feature	Dependent Variable	Groups	Art. Mean	Std. Dev.	Levene's Test for Equality of Variances		t	df	
					F	Sig.			
Marital Status	Attitudes towards Ecotourism	Single	4,10	,4592	Equal Not equal	6,383	,012	,152 ,167	329 199,579
		Married	4,09	,5683					
	Likeability of Tourist Landscapes	Single	4,47	,6359	Equal Not equal	,003	,958	,436 ,438	329 163,353
		Married	4,43	,6401					
Intention to Participate in Ecotourism	Single	3,20	1,199	Equal Not equal	,532	,466	4,686 4,810	329 171,282	
	Married	2,47	1,271						
Environmental Knowledge	Single	4,20	,6774	Equal Not equal	,178	,673	1,215 1,206	329 159,861	
	Married	4,10	,6655						

As shown in Table 7, as a result of one-way variance analysis (ANOVA) to determine whether the arithmetic average of ecotourism scale dimensions differs significantly according to the occupations of sample; attitude level towards ecotourism by occupational group ( $F_{6-330} = 4.802$ ;  $p<.05$ ); the level of intention to participate in ecotourism ( $F_{6-330} = 5.381$ ;  $p<.05$ ) and environmental knowledge level ( $F_{6-330} = 3.909$ ;  $p<.05$ ). In order to decide which multi-comparison technique to use after ANOVA, Levene's test first tested the hypothesis of whether the variances of group distributions were homogeneous, and it was determined that the variances were homogeneous for educational status ( $p>.05$ ). For this reason, Tukey's multiple comparison test was preferred.

According to the test results, the differences between the attitude levels of the sample towards ecotourism and occupational group are meaningful ( $p<.05$ ). It can be said that participants whose occupation is officer ( $x=4.44$ ) and working in the private sector ( $x=4.25$ ) have a higher level of attitude towards ecotourism than participants who are retired ( $x=3.78$ ) and housewives ( $x=3.99$ ). The differences between the level of samples' intention to participate in ecotourism and the occupational group are significant ( $p<.05$ ). It can be said that participants whose profession is officer ( $x=1.88$ ) have a lower level of intention to participate in ecotourism than participants who are self-employed ( $x=3.08$ ), unemployed ( $x=3.16$ ) and in the private sector ( $x=3.99$ ). It can be said that participants who are self-employed ( $x=3.08$ ) have a higher intention to participate in ecotourism than participants who are officers ( $x=1.88$ ), and housewives ( $x=2.28$ ). In addition, it can be said that participants who are housewives ( $x=2.28$ ) have a lower level of intention to participate in ecotourism than participants who are self-employed ( $x=3.08$ ) and private sector employees ( $x=2.88$ ).

According to the test results, the differences between the environmental knowledge levels of the participants and the occupational group are significant ( $p<.05$ ). It can be said that participants, who are unemployed ( $x=3.68$ ), have a lower level of environmental knowledge than participants who are retired ( $x=4.38$ ), employed in the private sector ( $x=4.23$ ) and self-employed ( $x=4.25$ ).

**Table 7. Ecotourism ANOVA Results by Occupational Groups**

Dimensions	Occupational Groups	N	Mean	St. Deviation	F Value	Difference
Attitudes towards Ecotourism	A Officer	21	4,4413	,47632	4,802	,000 A, G > C, E
	B Self-employment	68	4,1020	,56221		
	C Retired	21	3,7841	,86664		
	D Unemployed	16	4,0000	,18539		
	E Housewife	106	3,9956	,49619		
	F Student	21	4,0635	,34414		
	G Private Sector	78	4,2590	,49505		
Likeability of Tourist Landscapes	A Officer	21	4,3968	,84241	1,417	,207
	B Self-employment	68	4,4632	,66345		
	C Retired	21	4,1270	,75444		
	D Unemployed	16	4,4479	,50449		
	E Housewife	106	4,4151	,63381		
	F Student	21	4,5079	,56636		
	G Private Sector	78	4,5620	,55252		
Intention to Participate in Ecotourism	A Officer	21	1,8889	,96801	5,381	,000 A < B, D, G B > A, E E < B, G
	B Self-employment	68	3,0882	1,42661		
	C Retired	21	2,9683	1,17334		
	D Unemployed	16	3,1667	,84327		
	E Housewife	106	2,2830	1,08065		
	F Student	21	2,7143	1,23056		
	G Private Sector	78	2,8803	1,41521		
Environmental Knowledge	A Officer	21	4,2222	,39907	3,909	,001 B, C, G > D
	B Self-employment	68	4,2500	,79671		
	C Retired	21	4,3810	,54043		
	D Unemployed	16	3,6875	,62620		
	E Housewife	106	3,9528	,64806		
	F Student	21	4,2222	,41276		
	G Private Sector	78	4,2350	,65379		

## Discussion

The fact that the attitudes and knowledge levels of foreign tourists about ecotourism and the environment are lower than those of domestic tourists can show that the primary preferences of foreign tourists are not ecotourism. It can be said that the natural beauties of the region should be brought to the fore with promotion and foreign tourists who intend to participate in ecotourism should be brought to the region. In addition, it is understood that housewives are more satisfied with ecotourism despite their lower environmental knowledge and intention to participate in ecotourism. While environmental beauties are observed as a factor that increases the satisfaction level of ecotourism among housewives, it can be said that the low level of

preference in the decision-making phase is due to the fact that their environmental information is less than other occupational groups.

Carrying out more informative activities about the ecological values of the region to the tourists coming to Antalya can increase their environmental knowledge level and their willingness to participate in ecotourism. It can be said that marketing strategies should be developed, and promotional activities should focus on ecological beauties in order to increase the number of visitors who prefer ecotourism as the first priority among the reasons for visiting Antalya, one of the most important destination centers in Turkey. Considering that global warming and environmental change are one of the most important problems of the world, environmental educational information should be provided to the visiting tourists with the support of public and local government in agencies and accommodation facilities within the scope of the protection of the region. Also at the entrance of Düden Waterfall, educational boards or guidance services can be provided to increase the environmental knowledge of the tourists visiting the region.

## Conclusion and Suggestions

Regarding the dimensions that make up the ecotourism scale, it is seen that local residents and foreign tourists included in the sample have high averages in terms of attitude towards ecotourism, likeability of tourist landscapes and environmental knowledge, but, have low averages in terms of their intention to participate in ecotourism. In this context, the participation of sample in ecotourism should be supported, and participation in ecotourism should be encouraged by regulating organizations on this subject.

According to the ecotourism scale factor table (Table 3), the factor with the highest explanatory power is “attitude towards ecotourism” and the lowest factor is “environmental knowledge”. After the reliability analysis, it was concluded that the scale was reliable.

The findings obtained by an independent group as a result of the “t” test reveal that local residents have more positive attitude towards ecotourism and higher environmental knowledge levels than foreign tourists. The result of higher environmental knowledge of locals, are parallel with the findings of Landra et al., study (2018). It is thought that the reason for this is the fact that local residents have the opportunity to visit the region more often and the region is a part of their own homeland, so their environmental knowledge is better and their attitudes are more positive. In addition, it can be said that ecotourism is not the first in the line of priorities of foreign tourists visiting the research area. Environmental knowledge powerfully affects local residents’ attitudes towards ecotourism, this result is consistent with Zhang and Lei (2012) study. On the contrary, there are differences in terms of foreign tourists because their study is composed of only local residents.

Findings of an independent group as a result of the “t” test reveal that female participants are more pleased than male participants, whereas male participants have more environmental knowledge and more intention to participate in ecotourism than females. Result about more knowledge of males is consistent with the findings of Mogoria et al., study (2018). It is thought that the reason why female participants are more satisfied with ecotourism practices than males is that they like ecological beauty much more easily. On the other hand, according to the results of participation in ecotourism according to occupational groups (Table 7), it is seen that individuals whose occupation is housewife have a lower intention to participate in ecotourism compared to other occupational groups. The main reason for this is, as a result of the evalua-

tion made on the level of attitude towards ecotourism in Table 7, it can be said that housewives have a lower attitude than other occupational groups.

The findings of an independent group "t" test reveal that single participants have greater intention to participate in ecotourism than married ones. The reason for this is that single participants can move freely, and married ones have responsibilities towards other members of the family, they are thought to have a lower intention to participate in ecotourism than single ones.

As a result of the *One-Way ANOVA* test, which was conducted to determine the differences between occupational groups, it is revealed that those who are officers and private sector employees have a more positive attitude towards ecotourism than retired and housewives. Another result is that officers are less than self-employed, unemployed and private sector employees in terms of their intention to participate in ecotourism. It is thought that the reason for this is that officers are more reluctant to participate in ecotourism due to their limited time during the year. In addition, it has been determined that housewives are less likely to participate in ecotourism than self-employed and private sector employees. Another result is that although the officers have a positive attitude towards ecotourism, their intention to participate has decreased due to their limited allowance. Finally, in the analysis of occupational differences, it was revealed that unemployed participants have less environmental knowledge than self-employed, retired and private sector employees.

Within the scope of the research, the *One-Way ANOVA* test was performed to determine whether there are differences in the ecotourism sub-dimensions according to the age, education and income status of the sample. The findings show that there are no differences in the sub-dimensions of ecotourism according to the age, education and income status of the participants.

## Limitations of the Research

Like all studies, this study has some limitations. The first is that it was done during the worldwide Covid-19 pandemic. It could be repeated with greater samples in the future. Second, all results were based on replies from the sampled participants.

Regarding the dimensions that make up the ecotourism scale, it is seen that domestic and foreign tourists included in the sample have high averages in terms of attitude towards ecotourism, tourist satisfaction and environmental knowledge, whereas they have low averages in the dimension of tourists' intention to participate in ecotourism. In this context, the participation of tourists in ecotourism should be supported, and participation in ecotourism should be encouraged by regulating organizations on this subject.

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