

# Socio-cultural, economic and environmental impacts of tourism from the perspective of local people: A field study in the context of sustainability

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## Abstract

The purpose of this study is to examine the environmental, socio-cultural, and economic perceptions of the local population living in the provinces of Rize and Trabzon in the Eastern Black Sea Region regarding sustainable tourism development within the framework of stakeholder theory and to reveal whether these perceptions differ according to demographic variables. A quantitative research design was adopted in the study; data were obtained from 360 participants reached through convenience sampling via a questionnaire prepared using a 5-point Likert scale. The construct validity of the scale was tested using exploratory factor analysis, and its reliability was evaluated using Cronbach's alpha coefficient. In addition to descriptive statistics, independent samples t-test and one-way analysis of variance (ANOVA) were used in the analysis of the data. The research findings show that the local community's perceptions of the economic effects of tourism are highly positive, while they exhibit a more cautious attitude regarding environmental and socio-cultural effects. Furthermore, it was determined that perceptions of economic sustainability significantly strengthened with increasing education level and income; age, marital status, and monthly income variables created significant differences in some sustainability dimensions. In contrast, no significant differences in perceptions were found based on gender, income from tourism, and place of residence variables. The research highlights the decisive role of local community perceptions in the success of sustainable tourism policies; it contributes to the development of region-specific governance and planning strategies aimed at strengthening local participation within the stakeholder theory framework.

## Keywords

**Keywords:** Sustainable tourism, Local community, Stakeholder theory, Tourism perception

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## Ethics & Conflict of Interest

### Conflict of Interest

The authors declare no conflict of interest.

### Ethics Committee

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## 1. Introduction

The tourism sector plays an important role in countries' development strategies today due to its economic contributions, potential for job creation, and role in supporting regional development (Erkiliç, 2019). However, the development process of tourism is not limited to economic gains; it also brings multidimensional effects such as environmental degradation, socio-cultural transformation, and changes in local life practices (Ünal & Yücel, 2018). This situation indicates that the unplanned and uncontrolled development of tourism may threaten the long-term sustainability of destinations. In this context, the sustainable tourism approach offers a comprehensive framework that aims to address the environmental, socio-cultural, and economic dimensions of tourism activities in a balanced manner and to preserve natural and cultural resources for future generations (Avcıkurt & Demirbulat, 2016). The success of sustainable tourism is closely related not only to public authorities or private sector investments, but also to the perceptions, attitudes, and level of participation of the local community directly affected by this process. The support and acceptance of tourism activities by the local community and their involvement in decision-making processes are considered one of the fundamental elements of the social dimension of sustainability (Çelik & Bahar, 2015).

At this point, stakeholder theory provides a powerful analytical framework for sustainable tourism studies. Developed by Freeman (1984), stakeholder theory argues that the success of a process depends not only on economic actors but also on taking into account the expectations and interests of all stakeholders affected by the process. In the context of tourism, the local community is one of the key stakeholder groups that directly experiences the environmental, economic, and socio-cultural impacts of tourism and develops attitudes towards these impacts (Byrd, 2007). Therefore, analyzing the perceptions of the local community should be approached not only as a descriptive approach but also as an analytical necessity that evaluates the legitimacy and feasibility of tourism policies (Karakuş, Onat, & Özdemir, 2020).

The literature on tourism geography also examines the spatial, social, and economic impacts of tourism, revealing how tourism transforms settlement areas (Emekli, 2006; Doğaner, 2019). The effects of tourism on transportation infrastructure, seasonal population movements, the natural environment, and local culture are becoming more visible, especially in rapidly developing destinations. Therefore, in sustainable tourism planning, it is impossible to consider the perceptions of the local population independently of the spatial and social context. Turkey is an important destination hosting different types of tourism thanks to its rich natural, cultural, and historical values. The Eastern Black Sea Region, in particular, has been the focus of intensive tourism investments in recent years due to its natural landscape, highland tourism potential, and developing infrastructure. In this context, the provinces of Rize and Trabzon are among the region's prominent destinations with increasing visitor numbers and diversifying tourism activities (Yeşiltaş, 2009; Erkiliç, 2019). However, this rapid development process may also cause the local community's perceptions of environmental pressures, cultural change, and economic expectations to differ.

A review of the existing literature reveals that, although there are numerous studies addressing local people's perceptions of tourism, empirical studies that comprehensively address these perceptions within the framework of the environmental, socio-cultural, and economic dimensions of sustainability and include regional comparisons are limited (Erkiliç, 2019; Dağlı, 2018; Karakuş et al., 2020). The lack of studies that examine the provinces of Rize and Trabzon together and compare local community perceptions in the context of demographic variables forms the basis of this research. Accordingly, the aim of this study is to examine the environmental, socio-cultural, and economic perceptions of the local people living in the provinces of Rize and Trabzon regarding sustainable tourism development within the framework of stakeholder theory and to analyze whether these perceptions differ significantly according to demographic characteristics. The research aims to reveal the differences in the perceptions of the local population, assess the level of social acceptance of sustainable tourism policies, and provide a scientific basis for policy and planning processes aimed at strengthening local participation.

In this context, the study contributes to the sustainable tourism literature with a regional and comparative perspective, empirically tests stakeholder theory through local community perceptions, and develops implications for destination management and local governance practices. The remainder of the article presents the relevant literature and theoretical framework, explains the research method, analyzes the findings, and discusses the results in the context of sustainable tourism policies.

## 2. Literature Review/Conceptual Framework/Theoretical Background

Sustainable tourism is approached as a multidimensional approach that considers not only the economic benefits of tourism activities but also environmental protection and socio-cultural integrity (Avcıkurt & Demirbulat, 2016).

This approach aims to prevent tourism from destroying natural and cultural resources for short-term economic gains and to ensure that tourism activities are sustained in the long term in a manner consistent with the carrying capacity of destinations. In this context, sustainable tourism is not only a means of environmental protection but also offers a holistic development approach that encompasses social justice, local welfare, and economic balance (Çelik & Bahar, 2015).

### ***Sustainable Tourism and Local Community Perceptions***

The local community is one of the key actors directly affected by tourism activities and experiencing their consequences in their daily lives. The literature frequently emphasizes that the local community's perceptions of tourism play a decisive role in the sustainable development of the destination (Erkiliç, 2019; Ünal & Yücel, 2018). The local community's support for tourism, participation in tourism activities, and perception of these activities as legitimate are critical to the success of sustainable tourism policies. Previous studies have shown that the local community generally has a positive attitude towards the economic effects of tourism; factors such as increased employment, higher income levels, and the promotion of local investment increase support for tourism (Erkiliç, 2019). Conversely, negative impacts such as environmental degradation, cultural erosion, and transformations in the social structure can make the local community's perceptions of tourism more cautious (Ünal & Yücel, 2018). This situation demonstrates that the local community's perceptions are not one-dimensional; economic benefits are evaluated alongside environmental and socio-cultural risks.

The literature also includes findings that the local community's perceptions of tourism vary according to demographic characteristics. It is stated that with increasing education level and income, the economic contributions of tourism are evaluated more rationally, while age, marital status, and life experience can affect environmental and cultural sensitivities (Dağlı, 2018; Erkiliç, 2019). These findings reveal that local community perceptions are not homogeneous and that demographic variables must be taken into account in sustainable tourism analyses.

### ***Stakeholder Theory and Its Role in the Context of Tourism***

Stakeholder theory, developed by Freeman (1984), is an approach that argues that the success of an organization or process depends not only on economic actors but also on taking into account the expectations and interests of all stakeholders affected by the process. In the context of tourism, this theory argues that the environmental, economic, and socio-cultural impacts of tourism concern a large number of actors and that sustainability can only be achieved by involving these actors in the process (Byrd, 2007). Stakeholder theory can be approached through three fundamental dimensions. The normative dimension views the inclusion of local communities in the tourism process as an ethical and legitimate requirement. The instrumental dimension argues that sustainable tourism policies are limited in their applicability without the support of the local community. The descriptive dimension asserts that the perceptions of the local community reflect the existing governance structure and how tourism practices work in practice (Stieb, 2009; Child & Marcoux, 1999).

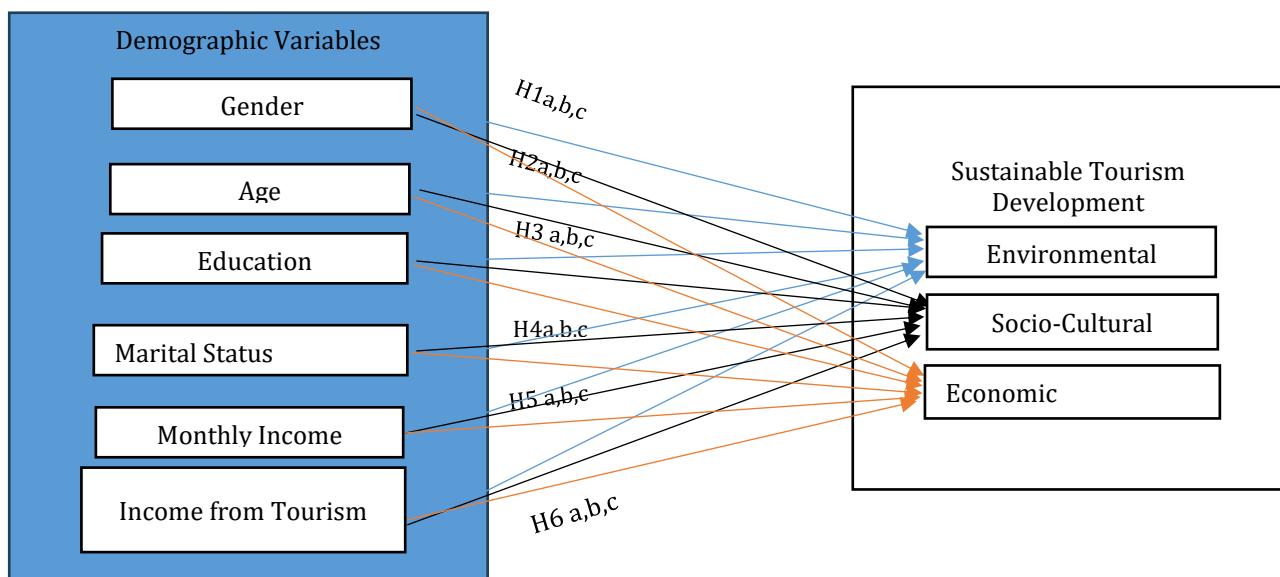
In this context, the local community stands out as the key stakeholder group that directly experiences the consequences of tourism. Analyzing the perceptions and attitudes of the local community has become an analytical necessity in order to assess the level of social acceptance of sustainable tourism policies and to strengthen participatory planning processes (Karakuş, Onat, & Özdemir, 2020). Therefore, stakeholder theory is used in this study not only as a theoretical background but also as an explanatory framework that allows for the interpretation of local community perceptions.

### ***Development of the Conceptual Model and Basis of Hypotheses***

Findings in the literature indicate that local people's perceptions of sustainable tourism should be addressed within the framework of environmental, socio-cultural, and economic dimensions (Avcıkurt & Demirbulat, 2016; Erkiliç, 2019). In this study, sustainable tourism development was examined under these three dimensions; it was tested whether local community perceptions differed according to demographic variables. The main reason for including demographic variables in the model is the findings in the literature that these variables play an important role in explaining perception differences. Education level and income affect how individuals evaluate the economic contributions of tourism, while age and marital status are associated with environmental risk perception and cultural sensitivity (Dağlı, 2018; Erkiliç, 2019). Place of residence and income from tourism are linked to the level of direct experience of tourism's effects.

In the conceptual model developed in line with this theoretical and empirical background, the local community's perceptions of sustainable tourism are considered the dependent variable; gender, age, education level, marital status, monthly income, income from tourism, and place of residence are included in the model as independent variables. The hypotheses (H1-H7) developed within the model are based on findings in the literature and the basic assumptions of stakeholder theory. The limited number of studies in the literature that address local community perceptions in relation to all dimensions of sustainability and include regional comparisons constitutes the main theoretical and empirical gap of this research (Karakuş et al., 2020; Erkiliç, 2019). This study aims to fill this gap by empirically testing stakeholder theory through local community perceptions and providing a comprehensive contribution to the sustainable tourism literature at the regional level.

The model created in the current research is observed in Figure 1.



**Figure 1. Research Model**

Source: Created by the author for this study.

**H1a:** Local people's environmental perceptions towards sustainable tourism development differ significantly according to gender.

**H1b:** Socio-cultural perceptions of local people towards sustainable tourism development differ significantly by gender.

**H1c:** Local people's economic perceptions towards sustainable tourism development differ significantly by gender.

**H2a:** Local people's environmental perceptions towards sustainable tourism development differ significantly according to age groups.

**H2b:** Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to age groups.

**H2c:** Local people's economic perceptions towards sustainable tourism development differ significantly according to age groups.

**H3a:** Local people's environmental perceptions towards sustainable tourism development differ significantly according to educational status.

**H3b:** Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to educational level.

**H3c:** Local people's economic perceptions towards sustainable tourism development differ significantly according to educational status.

**H4a:** Local people's environmental perceptions towards sustainable tourism development differ significantly according to marital status.

**H4b:** Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to marital status.

**H4c:** Local people's economic perceptions towards sustainable tourism development differ significantly according to marital status.

**H5a:** Local people's environmental perceptions towards sustainable tourism development differ significantly according to monthly income level.

**H5b:** Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to monthly income level.

**H5c:** Local people's economic perceptions towards sustainable tourism development differ significantly according to monthly income level.

**H6a:** Local people's environmental perceptions towards sustainable tourism development differ significantly according to their income from tourism.

**H6b:** Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to their income from tourism.

**H6c:** Local people's economic perceptions towards sustainable tourism development differ significantly according to their income from tourism.

**H7a:** Local people's environmental perceptions towards sustainable tourism development differ significantly according to the place of residence (Trabzon or Rize).

**H7b:** Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to place of residence (Trabzon or Rize).

**H7c:** The economic perceptions of local people towards sustainable tourism development differ significantly according to the place of residence (Trabzon or Rize).

### 3. 3. Methodology

#### Research Area

In the present study, Trabzon and Rize, which are among the important tourism destinations of the Black Sea Region, were preferred as the research field. Many reasons were effective in the selection of these provinces. Trabzon and Rize, which have rich geographical, cultural, economic and touristic resources, attract attention with increasing tourism investments and diversifying tourism types in recent years (Erkiliç, 2019; Onat, 2025; Rize Provincial Directorate of Culture and Tourism, 2022, 2024a). Especially the potential for nature tourism, transhumance culture, local lifestyle, cultural heritage elements and continuous development in tourism have been effective in the selection of these two provinces as research sites.

Trabzon is defined as a "Brand City" in Turkey's 11th Development Plan and is the only province in the Black Sea Region with this title (Trabzon Provincial Directorate of Culture and Tourism, 2025). Trabzon has become a strategic center in the tourism sector with its rich cultural heritage, plateau and nature tourism opportunities, and development in various fields such as health and sports tourism. As a matter of fact, the increase in tourism revenue from 1.3 million TL in 2010 to 1.5 million TL in 2011, and the hosting of 750 thousand tourists in 2021, 956.7 thousand in 2022 and 1 million 319.3 thousand in 2023, despite the short-term decline in the following years, clearly reveal the growth trend of the province in tourism (Ayvazoğlu, 2024; T.R. Ministry of Culture and Tourism, 2023). These data show that Trabzon is a prominent destination in the national and international market.

Rize is defined as the "Green Pearl of the Black Sea" and stands out especially with nature, plateau and tea tourism. Highlands such as Ayder, Pokut and Anzer attract the attention of local and foreign tourists (Rize Provincial Directorate of Culture and Tourism, 2022). Investments such as Rize-Artvin Airport and İyidere Logistics Center support the tourism potential by strengthening the transportation infrastructure of the province. Hosting 649.8 thousand tourists in 2013, Rize is expected to increase this number to 1 million 341.9 thousand in 2023, indicating a significant increase in the province's tourism capacity (Rize Provincial Directorate of Culture and Tourism, 2024b). In addition, "tea tourism", which offers an experience unique to the region, is among the alternative tourism types that attract attention in the literature (Eröz and Bozok, 2018).

It is known that both provinces have implemented various development plans in areas such as infrastructure, promotion and environmental improvement within the scope of sustainable tourism (Rize Provincial Directorate of Culture and Tourism, 2022; Trabzon Provincial Directorate of Culture and Tourism, 2025). Considering that tourism activities directly affect the people of the region not only economically but also socially and environmentally, it can be said that the attitudes, perceptions and expectations of local people towards tourism are important for a destination (Karakuş et al., 2020).

The main reason for selecting local people as the sample in the current research is that they are one of the most important stakeholders of sustainable tourism. The fact that tourism activities directly affect the environment they live in makes local people an actor who both benefits from this process and is exposed to various risks (Numanoğlu & Güçer, 2018). As a matter of fact, many studies in the literature emphasize that measuring the perceptions and attitudes of local people towards tourism is critical for sustainable tourism policies (Çalışkan & Özer, 2022; Erkiliç, 2019; Kılıçlar & Pala, 2019; Köksal, Şeyhanlıoğlu, & Oğuz, 2023). For example, in the study conducted by Erkiliç (2019) in Rize, it was revealed that local people generally approached tourism positively, but awareness-raising

activities should be increased. Similarly, Dağlı (2018) conducted a study in Akçakoca and found that local people have economic expectations about tourism but do not have sufficient information. Arslan, Yıldız and Esen (2023), on the other hand, in their research conducted in Kuşadası, stated that the local people welcomed tourism positively in terms of employment; however, the public should be educated in terms of the protection of cultural heritage.

In this context, Trabzon and Rize provinces are considered as a regional sample area with increasing tourism investments, hosting different types of tourism and strategies developed in the context of sustainable tourism policies. Since local people are among the main stakeholders who directly experience the social impacts of these processes, their selection as a sample coincides with the purpose of the study.

### **Research Variables and Data Collection**

In the research, sustainable tourism development is examined as a dependent variable. In order to measure the concept of sustainable tourism development, the scale developed in Manojlović, Cvetković, Renner, Grozdanić and Perošević (2025) was preferred. The scale consists of 28 statements in the mentioned study. The scale was measured with a 5-point Likert scale in the original source (1 strongly disagree→ 5 strongly agree). In the study, questions expressing the demographic characteristics of the participants constitute the independent variable. Questions such as gender, age, education level, marital status, monthly income, income from tourism and province of residence constitute the questions that express the demographic characteristics of the participants. A 5-point Likert-type scale (1 strongly disagree→ 5 strongly agree) was used to measure the dependent variable used in the current research.

In the current research, convenience sampling method was preferred. Convenience sampling is a sampling technique that aims to collect data from individuals who are most easily accessible to the sampling group (S. Gürbüz & Şahin, 2014). Since this sampling technique aims to collect data from all accessible samples, the power of the collected data to represent the whole universe is low (S. Gürbüz & Şahin, 2014). However, since the data should be collected from a limited period of time in the research, it was deemed appropriate to prefer convenience sampling technique. In order to collect the data of the research, an e-survey and a physical questionnaire containing the questions mentioned above were created. While a total of 33 people were reached with the physical survey, a total of 327 people were reached with the e-survey method. The e-survey method enables the sample group to be reached with less cost and the data to be protected electronically (Braun, Clarke, Boulton, Davey, & McEvoy, 2021). In the current study, the e-survey method was utilized more in order to benefit from the mentioned advantages and because of the overlap between the advantages provided by the sampling method used in the current study and the advantages offered by the survey method.

The ethical approval required to collect data from the sample group in the current research was obtained from Recep Tayyip Erdoğan University Social and Human Sciences Ethics Committee with the number 2025/328 dated 14/05/2025. The questionnaire form created in the research was applied between 15.05-30.05-2025. An electronic questionnaire was sent to the local people living in Rize and Trabzon by the researchers involved in the study and they were provided to fill it out. A physical questionnaire was delivered to 33 local people living in Rize and they were asked to fill it out. A total of 360 questionnaires were analyzed with the SPSS 24 program. In the calculation of the power of the 360 questionnaires obtained to represent the universe Reisinger and Mavondo (2008) study was utilized. In this study, it is stated that 10 times the number of expressions of the observed variables is sufficient. According to the formula given for the current study, it can be stated that  $28*10=280$  usable questionnaires constitute the sufficient sample. In this case, it can be said that the sample size reached for the current study is sufficient.

In the research, firstly, missing value analysis was performed on the collected data. In the inclusion of missing values in the analysis, if less than 5% of the statements in a questionnaire were not answered, they were included in the analysis (Çokluk, Şekercioğlu, & Büyüköztürk, 2016). Considering this explanation, all questionnaires were included in the analysis. The data collected in the current study is expected to show normality assumption (Gürbüz & Şahin, 2014). The assumption of normality is among the requirements of the ongoing analysis. For this reason, Mahalonobis distance was utilized in the current study to ensure the normality assumption. Mahalonobis distances express the distances of the subjects whose data are collected in the research to each other, that is, to the center (Çokluk et al., 2016). In the analysis, no subject was found to violate normality in the data collected. Therefore, the research continued with 360 questionnaires.

### Normal Distribution of the Scale Used in the Study

The dependent variable Sustainable Tourism Development (STD) scale, which is the dependent variable in the current study, must fulfill the normality assumption for further analysis. For this reason, kurtosis and skewness values, which are one of the statistical methods for determining the normality assumption for the STD variable (Çokluk et al., 2016).

The critical threshold values used in the current study were determined in accordance with the standards specified by Hair, Black, Babin and Anderson (2013) and Kline (2011). Accordingly, the critical values of  $\pm 2.58$  at 1% significance level and  $\pm 1.96$  at 5% significance level are based on. Table 1 shows the kurtosis and skewness values of the statements related to the STD scale.

**Table 1. Kurtosis and Skewness Values of the Statements Related to Sustainable Tourism Development Scale**

Statements	kurtosis	Skewness
Tourism development has negative impacts on local communities as it changes local culture and traditions. (STD1)	-0.847	-0.190
Tourism development changes the traditional behavior patterns of local people (STD2)	-1.100	0.169
Tourism development degrades the environment (STD3)	-0.891	-0.225
Degradation of cultural and historical heritage is a consequence of tourism development (STD4)	-0.824	-0.255
Tourism development threatens biodiversity (STD5)	-0.869	-0.115
Tourism development increases employment opportunities (STD6)	0.821	-0.991
Tourism development increases the income of local people (STD7)	1.833	-1.317
Tourism development encourages investment in the local community (STD8)	1.824	-1.215
Tourism development requires a protected environment and thus enhances environmental protection (STD9)	-0.387	-0.533
Tourism development contributes positively to the protection of cultural and historical heritage (STD10)	-0.174	-0.536
Tourism development promotes infrastructure development (STD11)	1.296	-1.008
Local government or state provides support to residents engaged in tourism (loans, grants, donations) (STD12)	0.046	-0.656
Local people help each other to participate in tourism (STD13)	0.212	-0.574
Local products are used to create a tourism attraction (STD14)	1.752	-1.169
During the planning of activities related to tourism development, local people are asked for their opinion in some way by the local government. (STD15)	-0.660	-0.024
When vital decisions about tourism development are made in local communities, local people actively participate in the decision-making process. (STD16)	-0.698	-0.055
Suggestions and opinions of local people were taken into consideration in the creation of tourism activities (STD17)	-0.760	-0.022
Local communities are adequately involved in the tourism development process (STD18)	-0.486	0.149
Local people were/are involved in the development of a tourism project (STD19)	-0.380	-0.175
I would like the place where I live to be recognized as a tourism center. (STD20)	0.335	-0.917
I believe that tourism development will bring many benefits to the local community (STD21)	0.618	-0.911
I would like to work in a job related to tourism (STD22)	-0.649	-0.404
Tourism is the industry of the future (STD23)	0.580	-0.716
Everyone living in the local community is equally important for tourism development (STD24)	-0.208	-0.624
The opinions of local people should be taken into consideration when making a decision related to tourism (STD25)	2.052	-1.406
Local people know their local environment in the best way (STD26)	1.407	-1.151
Local people understand the advantages and disadvantages of their local community (STD27)	.437	-0.865
Local people are trained in tourism. (STD28)	-0.831	0.025

*Source:* Created by the author for this study.

In Table 1, it can be stated that the highest kurtosis value for the STD scale used in the study is 2.052 and the lowest kurtosis value is -1.100. The highest skewness value for the STD scale is 0.169 and the lowest skewness value is -1.406. It can be said that these values are between the desired critical threshold values within the 5% confidence interval (Hair et al., 2013; Kline, 2011). Since the STD scale met the normality assumption, parametric analyses were continued.

### **Reliability and Validity of the Scale Used**

Factor analysis is a multivariate statistical technique that is frequently preferred in testing construct validity and in the development, adaptation or application of a scale on different samples. This method gathers expressions under meaningful clusters based on the relationships between variables; thus, it enables the creation of subsets of the data (Kurtuluş, 2010: 189). At the same time, it aims to reveal a more concise and meaningful data structure based on the relationships between variables. Factor analysis not only explores the data structure but also forms the basis for subsequent statistical analysis processes (Çokluk et al., 2016). There are two basic types of factor analysis: Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) (Tabachnick & Fidell, 2014). In the literature, EFA is generally used in the initial stages of research and exploratory studies. On the other hand, CFA is mostly applied to test the structure of the scale within the framework of a predetermined theoretical model (Hair et al., 2013). Although there is a certain theoretical background regarding the Sustainable Tourism Development (STD) scale used in this study, it is thought that both regional and linguistic differences may be effective since the scale was originally treated as dimensionless and used in Turkish for the first time. For these reasons, it was deemed appropriate to use EFA method to determine the validity of the STD scale.

In the EFA process, items with factor loadings below 0.50 (STD9, STD10, STD12, STD13, STD14, STD22, STD24, STD28) were excluded from the analysis. In addition, it is recommended that the total variance explained should be at least 60%, but values of 50% and above are considered acceptable threshold values, and this study was based on the value of 50% (Hair et al., 2013). In terms of factor eigenvalues, values are expected to be 1 and above (Çokluk et al., 2016). In this framework, the criteria accepted in the current analysis are; minimum factor loading of 0.50, minimum eigenvalue of 1 and total explained variance ratio of 50%.

The reliability of the scales used in the study was also examined. Scale reliability refers to the consistency of the construct to be measured and the internal consistency between the statements in the scale (Hair et al., 2013). In other words, it measures the extent to which the answers given to the scale items are compatible with each other (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2009). In this context, Cronbach's Alpha coefficient, which is frequently used in reliability analyses, is calculated based on the ratio between the variance of the scale items and the total variance and its value varies between 0 and 1. In general, values of this coefficient of 0.70 and above are interpreted as acceptable levels of reliability. However, especially in exploratory studies, this limit can be stretched up to 0.60 (Kurtuluş, 2010).

**Table 2. Reliability and Validity Results for the Sustainable Tourism Development (STD) Scale**

Size	Items	Factor Loadings	Comon Variance	Eigenvalues	Percentage of Variances	Total Variance	Cronbach's Alpha		
Economic	STD25	0.722	0.543	4.171	20.890	50.502	0.846		
	STD8	0.693	0.508						
	STD7	0.686	0.481						
	STD26	0.671	0.479						
	STD21	0.648	0.531						
	STD6	0.631	0.412						
	STD27	0.608	0.389						
	STD11	0.596	0.374						
	STD23	0.569	0.439						
Socio- Cultural	STD20	0.556	0.452	3.194	15.969	50.502	0.823		
	STD17	0.805	0.653						
	STD18	0.775	0.607						
	STD16	0.763	0.592						
	STD19	0.709	0.526						
	STD15	0.706	0.526						
Environmental	STD3	0.767	0.591	2.729	13.643	50.502	0.768		
	STD4	0.745	0.560						
	STD1	0.711	0.511						
	STD2	0.667	0.461						
	STD5	0.663	0.462						
	Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy						0.804		
Bartlett's Test of Sphericity			Approximate $\chi^2$			2637.621			
			Sd.			190			
			Significance			.000			

*Source:* Created by the author for this study

In this study, Cronbach's Alpha coefficient was used to evaluate the internal consistency of the STD scale. In studies such as Boğan and Dedeoğlu (2019) Hair, Matthews, Matthews and Sarstedt (2017), it is stated that the lower limit accepted for reliability is 0.70. Accordingly, a value of 0.70 was taken as a reference to ensure the reliability of the STD scale used in the study. EFA findings regarding the STD scale are given in Table 2.

In Table 2, 3 factors with eigenvalues of 1 and above are observed. The eigenvalue of the economic sustainability dimension of the CSI scale is 4.171, the eigenvalue of socio-cultural sustainability is 3.194 and the eigenvalue of environmental sustainability is 2.729. The rate at which these three dimensions explain the STD variable can also be understood from the percentage of variances. Accordingly, the highest variance (20.890) is economic sustainability. The total explained variance refers to the variance explained jointly by the three factors. This value is above the acceptable value (50%) stated above. When Cronbach's Alpha reliability coefficient is analyzed, it is observed that all dimensions are above the threshold value (0.70). Table 2 shows that economic sustainability has a Cronbach's Alpha reliability coefficient of 0.846, socio-cultural sustainability 0.823 and environmental sustainability 0.768. In line with the explanations, it can be said that the reliability and validity of the scale are ensured.

#### 4. Findings

##### *Descriptive Statistics on Local People*

Data were collected from 360 local people living in Rize and Trabzon. Demographic findings regarding local people are observed in Table 3. In addition, Table 4 shows the means and standard deviations of the statements related to the Sustainable Tourism Development (STD) scale.

**Table 3. Demographic Characteristics of Local People**

	N	Frequency	Percent age (%)		N	Frequency	Percentage (%)
<b>Gender</b>	360			<b>Monthly Income (TL)</b>	360		
Woman		239	66.4	10,000 and below		109	30.3
Male		120	33.3	10.001-22.104		63	17.5
Missing Value		1	0.3	22.105-35.000		63	17.5
<b>Age</b>	360			35.001-45.000		29	8.1
20 and below		66	18.3	45.001-55.000		38	10.6
21-30		163	45.3	55.001 and above		43	11.9
31-40		74	20.6	Missing Value		15	4.2
41-50		39	10.8	<b>Income from Tourism</b>	360		
51 and above		18	5	Yes		53	14.7
<b>Education Status</b>	360			No.		306	85
Primary School		42	11.7	Lost Value		1	0.3
High School		114	31.7	<b>Province of Residence</b>	360		
Associate degree		64	17.8	Rize		320	88.9
License		115	31.9	Trabzon		39	10.8
Postgraduate		21	5.8	Missing Value		1	0.3
Missing Value		4	1.1				
<b>Marital Status</b>	360						
Married		154	42.8				
Single		204	56.7				
Missing Value		2	0.6				

*Source: Created by the author for this study.*

Of the 360 respondents, 66.4% were female, 45.3% were between the ages of 21-30, and 63.6% were high school or undergraduate graduates. 30.3% of the participants have a monthly income of 10,000 TL or less. 88.9% of the participants reside in Rize, while only 14.7% earn income from tourism. 56.7% of the participants are single and the sample consists of young and educated individuals. These findings indicate that the socio-demographic base of tourism activities consists mostly of young people, women and educated people.

**Table 4. Means of Statements Related to Sustainable Tourism Development Scale**

Items	Expression Averages	Std. Deviation
Tourism development has negative impacts on local communities as it changes local culture and traditions (STD1)	3.171	1.0927
Tourism development changes the traditional behavior patterns of local people (STD2)	2.919	1.1523
Tourism development degrades the environment (STD3)	3.278	1.1462
Degradation of cultural and historical heritage is a consequence of tourism development (STD4)	3.342	1.1133
Tourism development threatens biodiversity (STD5)	3.169	1.1278
Tourism development increases employment opportunities (STD6)	3.847	0.9938
Tourism development increases the income of local people (STD7)	4.058	0.9642
Tourism development encourages investment in the local community (STD8)	3.914	0.9327
Tourism development promotes infrastructure development (STD11)	3.869	0.8782
During the planning of activities related to tourism development, local people are asked for their opinion in some way by the local government. (STD15)	3.067	1.0212
When vital decisions about tourism development are made in local communities, local people actively participate in the decision-making process (STD16)	3.072	1.0398
Suggestions and opinions of local people were taken into consideration in the creation of tourism activities (STD17)	3.010	1.0416
Local communities are adequately involved in tourism development process (STD18)	2.950	1.0112
Local people were/are involved in the development of a tourism project (STD19)	3.144	0.9568
I would like the place where I live to be recognized as a tourism center (STD20)	3.844	1.0833
I believe that tourism development will bring many benefits to the local community (STD21)	3.864	0.9679
Tourism is the industry of the future (STD23)	3.669	0.9167
The opinions of local people should be taken into consideration when making a decision related to tourism (STD25)	4.136	0.9679
Local people know their local environment in the best way (STD26)	4.014	0.9484
Local people understand the advantages and disadvantages of their local community (STD27)	3.897	0.9518

Source: Created by the author for this study.

In Table 4, the means of the statements regarding the responses of the local people to the CSI variable are given. Explanations regarding the statements are as follows:

The respondents agreed with the statement "Tourism development increases the income of local people" ( $\bar{x}=4.058$ ) at a high level, indicating that they believe that tourism provides economic contribution. Similarly, the statements "The opinions of local people should be taken into consideration when making a decision about tourism" ( $\bar{x}=4.136$ ) and "Local people know their local environment in the best way" ( $\bar{x}=4.014$ ) show that local knowledge is important with high averages.

The responses to the statements "Tourism development encourages investment in the local community" ( $\bar{x}=3.914$ ) and "Tourism development increases employment opportunities" ( $\bar{x}=3.847$ ) show that the socioeconomic benefits of tourism are generally perceived positively. The statement "Tourism is the industry of the future" ( $\bar{x}=3.669$ ) supports this positive perspective.

On the other hand, a more cautious approach is observed in statements related to environmental and cultural impacts. The respondents moderately agreed with the statements "Degradation of cultural and historical heritage is a consequence of tourism development." ( $\bar{x}=3.342$ ), "Tourism development degrades the environment." ( $\bar{x}=3.278$ ) and "Tourism development threatens biodiversity." ( $\bar{x}=3.169$ ) at a moderate level and drew attention to possible risks.

Lower averages stand out in terms of participation and involvement in local processes. The statements "When vital decisions regarding tourism development are made in local communities, local people actively participate in the decision-making process." ( $\bar{x}=3.072$ ), "Local people's suggestions and opinions are taken into account in the creation of tourism activities." ( $\bar{x}=3.010$ ) and "Local people are adequately involved in the tourism development process." ( $\bar{x}=2.950$ ) indicate that the participation of local people in decision-making processes remains limited.

#### 4.2. Hypothesis Tests

A t-test analysis was conducted to determine whether the CSI of the local people living in Rize and Trabzon differ significantly according to gender. As a result of the t-test analysis, it was determined that environmental, socio-cultural and economic sustainability did not differ significantly according to the gender of the local people (Environmental=  $t=0.014$ ,  $p>0,05$ ; Socio-cultural=  $t=1.249$ ,  $p>0,05$ ; Economic=  $t=1.317$ ,  $p>0,05$ ). In the analyzes, it was determined that the distribution was homogeneous (Environmental=  $Sig=0.907$ ; Socio-cultural=  $Sig=0.264$ ;

Economic=Sig=0.252). Therefore, assuming that the variances were equally distributed in the study, the first row was deemed worthy of interpretation. The results of the T-test analysis of the participants' perceptions of sustainable tourism development according to their gender are given in Table 5.

**Table 5. T-test Results for Participants' Perceptions of Sustainable Tourism Development According to Gender**

		N	$\bar{x}$	SS	t	Homogeneity Test	p	
<b>Environmental</b>	Gender	Woman	239	3.1789	0.80748	0.014	0.907	<b>0.966</b>
		Male	120	3.1750	0.82383			
<b>Socio-Cultural</b>		Woman	239	3.0318	0.76696	1.249	0.264	<b>0.571</b>
		Male	120	3.0813	0.80110			
<b>Economic</b>		Woman	239	3.9033	0.61130	1.317	0.252	<b>0.667</b>
		Male	120	3.9333	0.64474			

Source: Created by the author for this study.

Independent sample t-test was applied to determine whether there is a significant difference in the perceptions of local people living in Rize and Trabzon according to marital status. According to the results of the analysis, it was determined that there was a significant difference in the environmental sustainability dimension according to the marital status of the local people ( $t=0.683$ ,  $p=0.006$ ). It can be stated that married individuals have higher perceptions of environmental sustainability than single individuals (Married  $\bar{x}=3.3097$ , single  $\bar{x}=3.0718$ ). On the other hand, no significant difference was observed in socio-cultural ( $t=2.293$ ,  $p=0.067$ ) and economic ( $t=0.217$ ,  $p=0.085$ ) dimensions. According to homogeneity tests, variances were homogeneous in all three dimensions ( $p>0.05$ ). Accordingly, the first row results were taken into consideration in the analyses. The t-test findings regarding the perceptions of sustainable tourism development according to marital status are presented in Table 6.

**Table 6. T-test Results for Participants' Perceptions of Sustainable Tourism Development According to their Marital Status**

		N	$\bar{x}$	SS	t	Homogeneity Test	p	
<b>Environmental</b>	Marital Status	Married	154	3.3097	0.83200	0.683	0.409	<b>0.006</b>
		Single	204	3.0718	0.78021			
<b>Socio-Cultural</b>		Married	154	3.1347	0.82860	2.293	0.131	<b>0.067</b>
		Single	204	2.9824	0.73430			
<b>Economic</b>		Married	154	3.9760	0.62173	0.217	0.641	<b>0.085</b>
		Single	204	3.8618	0.61749			

Source: Created by the author for this study.

Within the scope of the research, independent sample t-test was applied to determine whether there is a significant difference in the perceptions of the participants according to their income from tourism. As a result of the analysis, no significant difference was found in environmental ( $t=0.424$ ,  $p=0.554$ ), socio-cultural ( $t=0.719$ ,  $p=0.299$ ) and economic ( $t=6.951$ ,  $p=0.752$ ) dimensions ( $p>0.05$ ). The distribution of variances was tested in the environmental ( $p=0.515$ ), socio-cultural ( $p=0.397$ ) and economic ( $p=0.009$ ) dimensions, and the homogeneity assumption was violated only in the economic dimension. Therefore, row 1 was interpreted for environmental and socio-cultural sustainability perceptions while row 2 was interpreted for economic sustainability perception. However, since the significance levels are above 0.05, it is concluded that, in general, income from tourism does not have a statistically significant effect on perceptions of sustainable tourism. Related T-test results are presented in Table 7.

**Table 7. T-test Results for Participants' Perceptions of Sustainable Tourism Development According to Their Income from Tourism**

		N	$\bar{x}$	SS	t	Homogeneity Test	p	
<b>Environmental</b>	Income from Tourism	Yes	53	3.2387	0.85624	0.424	0.515	<b>0.554</b>
		No.	306	3.1670	0.80489			
<b>Socio-Cultural</b>		Yes	53	3.1509	0.85656	0.719	0.397	<b>0.299</b>
		No.	306	3.0306	0.76342			
<b>Economic</b>		Yes	53	3.8811	0.83299	6.951	0.009	<b>0.752</b>
		No.	306	3.9190	0.57923			

Source: Created by the author for this study.

In the study, an independent sample T-test was applied to determine whether there was a significant difference in the participants' perceptions of CSG according to the province of residence (Rize and Trabzon). As a result of the analysis, no statistically significant difference was found in the environmental ( $t=0.030$ ,  $p=0.727$ ), socio-cultural ( $t=0.013$ ,  $p=0.247$ ) and economic ( $t=0.026$ ,  $p=0.699$ ) dimensions. In addition, the variances in all three dimensions

were found to be homogeneously distributed ( $p>0.05$ ) and accordingly, the first row results were taken as basis in the analyses. The findings reveal that the participants' perceptions of sustainable tourism do not differ significantly according to their province of residence. Related T-test results are shown in Table 8.

**Table 8. T-test Results for Participants' Perceptions of Sustainable Tourism Development According to the Province of Residence**

		N	$\bar{x}$	SS	t	Homogeneity Test	p	
<b>Environmental</b>	Province of Residence	Rize	320	3.1723	0.80943	0.030	0.862	<b>0.727</b>
		Trabzon	39	3.2205	0.84080			
<b>Socio-Cultural</b>		Rize	320	3.0317	0.77379	0.013	0.908	<b>0.247</b>
		Trabzon	39	3.1846	0.80705			
<b>Economic</b>		Rize	320	3.9178	0.62324	0.026	0.872	<b>0.699</b>
		<b>Trabzon</b>	<b>39</b>	<b>3.8769</b>	<b>0.61792</b>			

*Source: Created by the author for this study.*

One-way ANOVA analysis was applied to determine whether there is a significant difference in the perceptions of sustainable tourism development (STD) according to the age, education level and monthly income levels of local people. The results of ANOVA analysis are presented in Table 9.

As a result of the analysis, no significant difference was found in the environmental ( $F=2.050$ ,  $p=0.087$ ) and socio-cultural ( $F=0.777$ ,  $p=0.544$ ) dimensions according to the age variable. However, a statistically significant difference was found in the economic dimension ( $F=6.949$ ,  $p=0.000$ ). When the results of the homogeneity test of variances are analyzed, it is observed that there is a homogeneous distribution between environmental ( $p=0.237$ ) and socio-cultural ( $p=0.163$ ) groups, while there is no homogeneous distribution in economic ( $p=0.016$ ). Accordingly, Gabriel method was used in environmental and socio-cultural dimensions. In the economic dimension, Games-Howell test was used since there was no equal distribution between variances.

It was determined that there was no significant difference in the perception of environmental sustainability according to the educational status variable ( $F=1.574$ ,  $p=0.181$ ). However, statistically significant differences were observed in socio-cultural ( $F=4.550$ ,  $p=0.001$ ) and economic ( $F=6.290$ ,  $p=0.000$ ) dimensions. According to the homogeneity test results, variances were equally distributed in the socio-cultural dimension ( $p=0.579$ ), while the homogeneity assumption was violated in the economic dimension ( $p=0.000$ ). Accordingly, Gabriel method was used in the socio-cultural dimension. In the economic dimension, Games- Howell test was deemed appropriate since there was no equal distribution between variances. Nevertheless, since the p value is below the significance limit, it can be stated that there are significant differences between the groups.

In the analysis according to the monthly income variable, no significant difference was found in the perception of environmental sustainability ( $F=1.849$ ,  $p=0.089$ ). However, statistically significant differences were found in the socio-cultural dimension ( $F=3.848$ ,  $p=0.001$ ) and the economic dimension ( $F=2.334$ ,  $p=0.032$ ). Considering the results of the homogeneity of variances test (Environmental, Socio-cultural and Economic respectively,  $p=0.239$ ,  $p=0.337$ ,  $p=0.002$ ), it is seen that the variances are equal in the socio-cultural dimension, while this assumption is not met in the economic dimension. Post-hoc analysis was conducted to determine between which income groups these significant differences observed in socio- cultural and economic dimensions emerged. The results of the post-hoc analysis are given in Table 10. While it was deemed appropriate to apply the Gabriel test in dimensions where homogeneity was ensured, the Games-Howell test was applied in dimensions where there was no equal distribution between variances.

Table 10 shows the results of the post-hoc analysis showing the subgroups between which significant differences in the perceptions of sustainable tourism development emerged according to the age, education level and monthly income levels of the local people. According to the age variable, in the economic sustainability dimension, the economic perception of the 20 and underage group was found to be significantly lower ( $\bar{x}=3.5682$ ) compared to the 21-30 ( $p=0.000$ ;  $\bar{x}=4.0196$ ), 31-40 ( $p=0.014$ ;  $\bar{x}=3.9338$ ) and 41-50 ( $p=0.018$ ;  $\bar{x}=4.0077$ ) age groups. These findings indicate that younger individuals have a lower perception of economic sustainability.

When the post-hoc analysis results obtained according to the educational status variable are examined, it is seen that significant differences in the socio-cultural sustainability dimension emerged between some educational groups. In particular, the socio-cultural sustainability perception of primary school graduates is significantly higher than that of undergraduate graduates ( $p=0.002$ ; primary school  $\bar{x}=3.1265$ , undergraduate  $\bar{x}=3.1231$ ). Similarly, bachelor's graduates have a significantly higher perception than high school graduates ( $p=0.026$ ; high school  $\bar{x}=2.9718$ ). This result shows that individuals with bachelor's and primary school education have a more

Table 9. ANOVA Analysis Results on Local People's Perceptions of Sustainable Tourism Development by Age, Education Level and Income

			N	$\bar{x}$	SS	Homogeneity of Variances Test	F	p
Age	Environmental	20 and below	66	3.1129	0.73193	0.237	2.050	<b>0.087</b>
		21-30	163	3.0736	0.80858			
		31-40	74	3.3196	0.85451			
		41-50	39	3.3487	0.69694			
		51 and above	18	3.3694	1.04165			
		Total	360	3.1760	0.81127			
	Socio-Cultural	20 and below	66	3.1265	0.66525	0.163	0.777	<b>0.544</b>
		21-30	163	2.9718	0.77583			
		31-40	74	3.0838	0.80000			
		41-50	39	3.1231	0.84556			
		51 and above	18	3.1528	0.92490			
		Total	360	3.0486	0.77671			
	Economic	20 and below	66	3.5682	0.69507	0.016	6.949	<b>0.000**</b>
		21-30	163	4.0196	0.49862			
		31-40	74	3.9338	0.64432			
		41-50	39	4.0077	0.67954			
		51 and above	18	3.8889	0.74193			
		Total	360	3.9114	0.62221			
Education	Environmental	Primary School	42	3.2012	0.70749	0.579	1.574	<b>0.181</b>
		High School	114	3.2654	0.84390			
		Associate degree	64	3.2813	0.83169			
		License	115	3.0452	0.78049			
		Postgraduate	21	3.0190	0.89868			
		Total	356	3.1750	0.81241			
	Socio-Cultural	Primary School	42	3.3226	0.83507	0.314	4.550	<b>0.001**</b>
		High School	114	3.1298	0.73158			
		Associate degree	64	3.0719	0.70226			
		License	115	2.8243	0.76509			
		Postgraduate	21	3.2571	0.95529			
		Total	356	3.0510	0.77959			
	Economic	Primary School	42	3.7952	0.70502	0.000	6.290	<b>0.000**</b>
		High School	114	3.7535	0.74693			
		Associate degree	64	3.9219	0.55620			
		License	115	4.0391	0.40689			
		Postgraduate	21	4.3381	0.51427			
		Total	356	3.9154	0.61937			
Monthly Income	Environmental	Missing Value	15	3.0300	0.51332	0.239	1.849	<b>0.089</b>
		10000 and below	109	3.0202	0.77839			
		10001-22104	63	3.3270	0.79377			
		22105-35000	63	3.2206	0.78348			
		35001-45000	29	3.4000	0.76532			
		45001-55000	38	3.3105	0.88556			
		55001 and above	43	3.0651	0.94387			
	Socio-Cultural	Total	360	3.1760	0.81127			
		Missing Value	15	3.4767	0.72182	0.337	3.848	<b>0.001**</b>
		10000 and below	109	3.0674	0.67842			
		10001-22104	63	3.2476	0.77102			
		22105-35000	63	2.8286	0.79746			
		35001-45000	29	3.1310	0.76583			
		45001-55000	38	2.7053	0.79286			
	Economic	55001 and above	43	3.1302	0.84952			
		Total	360	3.0486	0.77671			
		Missing Value	15	3.6933	0.96988	0.002	2.334	<b>0.032*</b>
		10000 and below	109	3.8495	0.57520			
		10001-22104	63	3.7873	0.60894			
		22105-35000	63	3.9143	0.70227			
		35001-45000	29	4.0828	0.46142			
		45001-55000	38	4.1395	0.47564			
		55001 and above	43	4.0047	0.63394			
		Total	360	3.9114	0.62221			

Source: Created by the author for this study.

positive approach to the socio-cultural impacts of tourism, while local people with high school graduates are more critical or sensitive to the socio-cultural impacts of tourism activities.

There are also striking differences between educational attainment and perception of economic sustainability. The economic sustainability perceptions of Postgraduate and local people with primary, high school and associate degrees differ significantly. There are statistically significant differences between graduate ( $\bar{x}=3.8889$ ) and primary school ( $p=0.009$ ;  $\bar{x}=3.5682$ ), high school ( $p=0.001$ ;  $\bar{x}=4.0196$ ) and associate degree graduates ( $p=0.025$ ;

$\bar{x}=3.9338$ ). In addition, high school graduates have higher perceptions of economic sustainability compared to undergraduate graduates ( $p=0.004$ ; high school  $\bar{x}=4.0196$ , undergraduate  $\bar{x}=4.0077$ ). These findings indicate that individuals with high school education have higher perceptions of economic sustainability than individuals with bachelor's and master's degrees. On the other hand, it can be said that local people with primary school education have a lower perception of economic sustainability than individuals with Postgraduate education ( $p=0.009$ ; primary school  $\bar{x}=3.5682$ ). This shows that as the level of education increases, the perception towards tourism, especially in the economic contribution dimension, strengthens and individuals adopt the positive effects of tourism on the local economy more.

The results of the post-hoc analysis in terms of monthly income level revealed that there were significant differences between some income groups, especially in the socio-cultural and economic sustainability dimensions. In the socio-cultural dimension, the perception of individuals in the income group of 10,001-22,104 TL is significantly higher ( $\bar{x}=3.2476$ ) compared to both 22,105-35,000 TL ( $p=0.043$ ;  $\bar{x}=2.8286$ ) and 45,001-55,000 TL ( $p=0.011$ ;  $\bar{x}=2.7053$ ) income groups. This indicates that individuals in the lower middle-income group may have a more positive or less critical attitude towards the cultural impacts of tourism.

In the economic sustainability dimension, the most striking differences are that the 45,001- 55,000 TL income group has higher perceptions compared to some other groups. This group has a significantly higher perception of economic sustainability ( $\bar{x}=4.1395$ ) compared to individuals in the income groups of 10,000 TL and below ( $p=0.046$ ;  $\bar{x}=3.8495$ ) and 10,001- 22,104 TL ( $p=0.027$ ;  $\bar{x}=3.7873$ ). This finding indicates that economically stronger groups have a higher perception that tourism contributes to the region economically. In this context, it can be stated that the higher the level of education and income, the more positive the perception towards economic sustainability.

**Table 10. Post-hoc Analysis of the Relationship between Age, Education and Monthly Income and Sustainable Tourism Development**

				Mean Difference	p	$\bar{x}$
Age	Economic	20 and below	21-30	-0.45145*	0.000	4.0196
			31-40	-0.36560*	0.014	3.9338
			41-50	-0.43951*	0.018	4.0077
			51 and above	-0.32071	0.482	3.8889
		21-30	20 and below	0.45145*	0.000	3.5682
			31-40	0.08585	0.847	3.9338
			41-50	0.01194	1.000	4.0077
			51 and above	0.13074	0.947	3.8889
		31-40	20 and below	0.36560*	0.014	3.5682
			21-30	-0.08585	0.847	4.0196
			41-50	-0.07391	0.980	3.9338
			51 and above	0.04489	0.999	3.8889
		41-50	20 and below	0.43951*	0.018	3.5682
			21-30	-0.01194	1.000	4.0196
			31-40	0.07391	0.980	3.9338
			51 and above	0.11880	0.978	3.8889
		51 and above	20 and below	0.32071	0.482	3.5682
			21-30	-0.13074	0.947	4.0196
			31-40	-0.04489	0.999	3.9338
			41-50	-0.11880	0.978	4.0077
Education	Socio-cultural	Primary School	High School	0.19279	0.803	2.9718
			Associate degree	0.25074	0.639	3.0838
			License	0.49827*	0.002	3.1231
			Postgraduate	0.06548	1.000	3.1528
		High School	Primary School	-0.19279	0.803	3.1265
			Associate degree	0.05795	1.000	3.0838
			License	0.30548*	0.026	3.1231
			Postgraduate	-0.12732	0.997	3.1528
		Associate degree	Primary School	-0.25074	0.639	3.1265
			High School	-0.05795	1.000	2.9718
			License	0.24753	0.310	3.1231
			Postgraduate	-0.18527	0.978	3.1528
		License	Primary School	-0.49827*	0.002	3.1265
			High School	-0.30548*	0.026	2.9718
			Associate degree	-0.24753	0.310	3.0838
			Postgraduate	-0.43280	0.100	3.1528
		Postgraduate	Primary School	-0.06548	1.000	3.1265
			High School	0.12732	0.997	2.9718
			Associate degree	0.18527	0.978	3.0838
			License	0.43280	0.100	3.1231
		Primary School	High School	0.04173	0.998	4.0196
			Associate degree	-0.12664	0.863	3.9338
			License	-0.24389	0.229	4.0077

Education	Economic	High School	Postgraduate	-0.54286*	0.009	<b>3.8889</b>
			Primary School	-0.04173	0.998	<b>3.5682</b>
			Associate degree	-0.16837	0.433	<b>3.9338</b>
			License	-0.28562*	0.004	<b>4.0077</b>
			Postgraduate	-0.58459*	0.001	<b>3.8889</b>
		Associate degree	Primary School	0.12664	0.863	<b>3.5682</b>
			High School	0.16837	0.433	<b>4.0196</b>
			License	-0.11726	0.578	<b>4.0077</b>
			Postgraduate	-0.41622*	0.025	<b>3.8889</b>
		License	Primary School	0.24389	0.229	<b>3.5682</b>
			High School	0.28562*	0.004	<b>4.0196</b>
			Associate degree	0.11726	0.578	<b>3.9338</b>
			Postgraduate	-0.29896	0.117	<b>3.8889</b>
		Postgraduate	Primary School	0.54286*	0.009	<b>3.5682</b>
			High School	0.58459*	0.001	<b>4.0196</b>
			Associate degree	0.41622*	0.025	<b>3.9338</b>
			License	0.29896	0.117	<b>4.0077</b>
Monthly Income	Socio- cultural	10000 and below	10001-22104	-0.18019	0.944	<b>3.2476</b>
			22105-35000	0.23886	0.618	<b>2.8286</b>
			35001-45000	-0.06360	1.000	<b>3.1310</b>
			45001-55000	0.36217	0.177	<b>2.7053</b>
			55001 and above	-0.06280	1.000	<b>3.1302</b>
		10001-22104	10000 below	0.18019	0.944	<b>3.0674</b>
			22105-35000	0.41905*	0.043	<b>2.8286</b>
			35001-45000	0.11658	1.000	<b>3.1310</b>
			45001-55000	0.54236*	0.011	<b>2.7053</b>
			55001 and above	0.11739	1.000	<b>3.1302</b>
		22105-35000	10000 below	-0.23886	0.618	<b>3.0674</b>
			10001-22104	-0.41905*	0.043	<b>3.2476</b>
			35001-45000	-0.30246	0.783	<b>3.1310</b>
			45001-55000	0.12331	1.000	<b>2.7053</b>
			55001 above	-0.30166	0.608	<b>3.1302</b>
		35001-45000	10000 below	0.06360	1.000	<b>3.0674</b>
			10001-22104	-0.11658	1.000	<b>3.2476</b>
			22105-35000	0.30246	0.783	<b>2.8286</b>
			45001-55000	0.42577	0.385	<b>2.7053</b>
			55001 and above	0.00080	1.000	<b>3.1302</b>
		45001-55000	10000 below	-0.36217	0.177	<b>3.0674</b>
			10001-22104	-0.54236*	0.011	<b>3.2476</b>
			22105-35000	-0.12331	1.000	<b>2.8286</b>
			35001-45000	-0.42577	0.385	<b>3.1310</b>
			55001 and above	-0.42497	0.227	<b>3.1302</b>
		55001 and above	10000 below	0.06280	1.000	<b>3.0674</b>
			10001-22104	-0.11739	1.000	<b>3.2476</b>
			22105-35000	0.30166	0.608	<b>2.8286</b>
			35001-45000	-0.00080	1.000	<b>3.1310</b>
			45001-55000	0.42497	0.227	<b>2.7053</b>
Economic	Economic	10000 and below	10001-22104	0.06224	0.995	<b>3.7873</b>
			22105-35000	-0.06474	0.996	<b>3.9143</b>
			35001-45000	-0.23322	0.268	<b>4.0828</b>
			45001-55000	-0.28993*	0.046	<b>4.1395</b>
			55001 and above	-0.15511	0.803	<b>4.0047</b>
		10001-22104	10000 below	-0.06224	0.995	<b>3.8495</b>
			22105-35000	-0.12698	0.932	<b>3.9143</b>
			35001-45000	-0.29546	0.152	<b>4.0828</b>
			45001-55000	-0.35217*	0.027	<b>4.1395</b>
			55001 and above	-0.21735	0.577	<b>4.0047</b>
		22105-35000	10000 below	0.06474	0.996	<b>3.8495</b>
			10001-22104	0.12698	0.932	<b>3.7873</b>
			35001-45000	-0.16847	0.817	<b>4.0828</b>
			45001-55000	-0.22519	0.473	<b>4.1395</b>
			55001 and above	-0.09037	0.993	<b>4.0047</b>
		35001-	10000 and	0.23322	0.268	<b>3.8495</b>

		45000	below			
			10001-22104	0.29546	0.152	<b>3.7873</b>
			22105-35000	0.16847	0.817	<b>3.9143</b>
			45001-55000	-0.05672	0.999	<b>4.1395</b>
		55001 and above		0.07811	0.996	<b>4.0047</b>
		45001-55000	10000 and below	0.28993*	0.046	<b>3.8495</b>
			10001-22104	0.35217*	0.027	<b>3.7873</b>
			22105-35000	0.22519	0.473	<b>3.9143</b>
			35001-45000	0.05672	0.999	<b>4.0828</b>
			55001 and above	0.13482	0.929	<b>4.0047</b>
		55001 and above	10000 and below	0.15511	0.803	<b>3.8495</b>
			10001-22104	0.21735	0.577	<b>3.7873</b>
			22105-35000	0.09037	0.993	<b>3.9143</b>
			35001-45000	-0.07811	0.996	<b>4.0828</b>
			<b>45001-55000</b>	<b>-0.13482</b>	<b>0.929</b>	<b>4.1395</b>

Source: Created by the author for this study.

The test results of the hypotheses developed within the scope of the research are presented in Table 11. While 6 hypotheses are accepted, 15 hypotheses are rejected as a result of the analysis.

Table 11. Hypothesis Test Results

Hypotheses	Conclusion
H1a: Local people's environmental perceptions towards sustainable tourism development differ significantly according to gender.	Reject
H1b: Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to gender.	Reject
H1c: Local people's economic perceptions towards sustainable tourism development differ significantly according to gender.	Reject
H2a: Local people's environmental perceptions towards sustainable tourism development differ significantly according to age groups.	Reject
H2b: Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to age groups.	Reject
H2c: The economic perceptions of local people towards sustainable tourism development differ significantly according to age groups.	Acceptance
H3a: Local people's environmental perceptions towards sustainable tourism development differ significantly according to educational status.	Reject
H3b: Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to educational status.	Acceptance
H3c: The economic perceptions of local people towards sustainable tourism development differ significantly according to educational status.	Acceptance
H4a: Local people's environmental perceptions towards sustainable tourism development differ significantly according to marital status.	Acceptance
H4b: Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to marital status.	Rejection
H4c: Local people's economic perceptions towards sustainable tourism development differ significantly according to marital status.	Reject
H5a: Local people's environmental perceptions towards sustainable tourism development differ significantly according to monthly income level.	Reject
H5b: Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to monthly income level.	Acceptance
H5c: The economic perceptions of local people towards sustainable tourism development differ significantly according to monthly income level.	Acceptance
H6a: Local people's environmental perceptions towards sustainable tourism development differ significantly according to their income from tourism.	Reject
H6b: Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to their income from tourism.	Reject
H6c: The economic perceptions of local people towards sustainable tourism development differ significantly according to their income from tourism.	Reject
H7a: Local people's environmental perceptions towards sustainable tourism development differ significantly according to the place of residence (Trabzon or Rize).	Reject
H7b: Socio-cultural perceptions of local people towards sustainable tourism development differ significantly according to the place of residence (Trabzon or Rize).	Reject
H7c: Local people's economic perceptions towards sustainable tourism development differ significantly according to the city of residence (Trabzon or Rize).	Reject

Source: Created by the author for this study.

According to the findings obtained as a result of t-test and ANOVA analyses, hypotheses H1, H2a, H2b, H3a, H4b, H4c, H5a, H6 and H7 were rejected, whereas hypotheses H2c, H3b, H3c, H4a, H5b and H5c were

accepted. This shows that demographic variables such as age, education level, marital status and monthly income create significant differences especially in economic and socio-cultural sustainability dimensions. On the other hand, no significant difference was observed according to gender, income from tourism and province of residence (see Table 11).

### 5. Conclusion and Discussion

In this study, the environmental, socio-cultural, and economic perceptions of the local population living in the provinces of Rize and Trabzon in the Eastern Black Sea Region regarding sustainable tourism development were examined within the framework of stakeholder theory, and it was analyzed whether these perceptions differed according to various demographic variables. The findings reveal that the local community's perceptions of the economic impacts of tourism are generally positive; however, they exhibit a more cautious and critical approach regarding environmental and socio-cultural impacts.

The positive perceptions obtained in terms of economic sustainability show that the local community clearly recognizes tourism's potential to create employment, increase income, and encourage local investment. This finding is consistent with previous studies showing that the economic contributions of tourism are more visible and directly felt at the local level (Erkiliç, 2019; Avcıkurt & Demirbulat, 2016). In contrast, the cautious approach observed in environmental and socio-cultural dimensions indicates increased awareness of the potential pressures of tourism on the natural environment, biodiversity, and local culture (Ünal & Yücel, 2018). This situation shows that the local community evaluates tourism not only as an economic development tool but also as a multidimensional process that carries risks. Evaluating the research findings in the context of stakeholder theory makes the theoretical contribution of the study more visible. Stakeholder theory argues that the success of a sustainable process is closely related to the perceptions, expectations, and participation levels of the stakeholders involved in the process (Freeman, 1984; Byrd, 2007). In this study, the relatively low level of perception of the local community regarding their participation in decision-making processes indicates a significant governance gap from the perspective of stakeholder theory. The local community accepts the economic benefits of tourism; however, they believe they do not have sufficient say in tourism planning and management processes. This finding is consistent with the literature emphasizing the need to strengthen participatory governance mechanisms in sustainable tourism practices (Karakuş, Onat, & Özdemir, 2020; Çelik & Bahar, 2015).

Findings based on demographic variables show that local community perceptions are not homogeneous and may vary according to sustainability dimensions. The strengthening of perceptions of economic sustainability with increasing education and income levels suggests that more educated and economically powerful individuals are able to more clearly assess tourism's contribution to regional development. Similarly, the lower perceptions of economic sustainability among younger individuals can be interpreted as indicating that this group may have limited expectations regarding the long-term economic benefits of tourism or that they are more sensitive to uncertainties related to the tourism sector. The fact that married individuals are more sensitive to environmental sustainability issues suggests that the perception of responsibility for protecting living spaces may be related to marital status. These findings are largely consistent with previous studies highlighting the decisive role of demographic factors in perceptions of sustainable tourism (Dağlı, 2018; Erkiliç, 2019). In contrast, the absence of significant differences based on gender, income from tourism, and place of residence indicates that a common experience of the effects of tourism has been established across the region. Particularly in provinces such as Rize and Trabzon, which share similar geographical, cultural, and economic characteristics, the high degree of similarity in the local population's perceptions of tourism indicates that sustainable tourism policies can be addressed at the regional level (Yeşiltaş, 2009).

The contribution of this study to the literature can be evaluated on three levels. First, by empirically testing stakeholder theory through local community perceptions, it supports the explanatory power of the theory in the context of sustainable tourism. Second, with comparative field data covering the provinces of Rize and Trabzon, it provides empirical contribution specific to the Eastern Black Sea Region. Third, the findings produce practical implications that participatory governance and more effective involvement of local communities in decision-making processes are necessary to increase the social acceptance of sustainable tourism policies at the local level. However, the study has some limitations. The fact that the data was collected using convenience sampling limits the generalizability of the findings. Furthermore, the sample's focus on Rize province requires caution in making comparisons between provinces. The cross-sectional design of the study does not allow for examining changes in perceptions over time. Future research using more balanced samples, longitudinal designs, and mixed research

designs supported by qualitative methods will contribute to a deeper understanding of local community perceptions.

In conclusion, this study demonstrates that sustainable tourism must be addressed not only in terms of economic returns but also in terms of environmental protection, socio-cultural integrity, and local participation. This approach, which focuses on the perceptions of the local community and is supported by stakeholder theory, provides an indispensable foundation for the success of sustainable tourism policies.

## References

Arslan, A., Yıldız, E., & Esen, O. (2023). Investigation of sustainable tourism attitudes of local people: The case of Kuşadası. *Yaşar University E-Journal*, 18(72), 425-448.

Avcıkur, C., & Demirbulat, Ö. (2016). Tourist guides' perspective on sustainable tourism. *Journal of Tourism Theory and Research*, 2(2), 173-191.

Ayvazoğlu, A. (2024). Trabzon tugra of the past signature of the future. Ortahisar/Trabzon: Indoor Ajans. <https://trabzon.ktb.gov.tr/Eklenti/59518,home-of-trabzon-turkcepdf.pdf>

Boğan, E., & Dedeoğlu, B. B. (2019). The influence of corporate social responsibility in hospitality establishments on students' level of commitment and intention to recommend. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 25, 100205. <https://doi.org/10.1016/j.jhlste.2019.100205>

Braun, V., Clarke, V., Boulton, E., Davey, L., & McEvoy, C. (2021). The online survey as a qualitative research tool. *International Journal of Social Research Methodology*, 24(6), 641-654.

Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2009). Scientific research methods. Ankara: Pegem Akademi Publishing.

Byrd, E. T. (2007). Stakeholders in sustainable tourism development and their roles: Applying stakeholder theory to sustainable tourism development. *Tourism Review*, 62(2), 6-13.

Çalışkan, U., & Özer, Ö. (2022). The relationship between tourism type and destination development and local people's perceptions and support attitudes: A comparative research. *Journal of Current Tourism Research*, 6(1), 28-52.

Celik, N., & Bahar, O. (2015). Demand forecasting of sustainable tourism. In I. Eurasia International Tourism Congress: Current Issues, Trends and Indicators (EITOC-2015) (pp. 28-30).

Child, J. W., & Marcoux, A. M. (1999). Freeman and Evan: Stakeholder theory in the original position. *Business Ethics Quarterly*, 9(2), 207-223.

Çokluk, Ö., Şekercioğlu, G., & Büyüköztürk, Ş. (2016). Multivariate statistics for social sciences: SPSS and LISREL applications (5th ed.). Ankara: Pegem Akademi. <https://doi.org/10.14527/9786055885670>

Dağlı, Z. (2018). A research on examining the attitudes of local people towards the development of sustainable tourism: Akçakoca destination. *Journal of Travel and Hotel Management*, 15(3), 603-619.

Doğaner, S. (2019). Turkey tourism geography literature review. *Journal of Turkey Research Literature*, 17(34), 441-476.

Emekli, G. (2006). Geography, culture and tourism: Cultural tourism. *Aegean Geography Journal*, 15(1-2), 51-59.

Erkiliç, E. (2019). Local people's perception of tourism and attitudes towards tourism development: Rize case. *International Journal of Contemporary Tourism Research*, 3(1), 66-82.

Eröz, S. S., & Bozok, D. (2018). Tea tourism and Rize province potential. *Third Sector Social Economy*, 53(3), 1159-1176.

Gürbüz, A. (2009). Perception of touristic products according to demographic characteristics of tourists visiting Safranbolu. *Journal of Doğu University*, 10(2), 217-234.

Gürbüz, S., & Şahin, F. (2014). Research methods in social sciences (Vol. 2). Ankara: Sözkese Matbaacılık Tic. Ltd.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). Multivariate data analysis (Pearson new international ed.). Pearson Higher Ed. <https://pearson.com.au/products/H-J-Hair-Anderson/H-J-Hair-Joseph-F-et-al/Multivariate-Data-Analysis-Pearson-New-International-Edition/9781292021904>

Hair, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: Updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107-123.

Karakuş, Y., Onat, G., & Özdemir, G. (2020). Gastronomy tourism associations and expectations of local people: The case of Göreme town. *Journal of Tourism and Gastronomy Studies*, 2020(3), 2179–2201. <https://doi.org/10.21325/jotags.2020.655>

Kılıçlar, A., & Pala, G. (2019). Examination of cultural sensitivity levels of local people. *Journal of Tourism and Gastronomy Studies*. [https://jotags.org/2019/vol7\\_issue4\\_article51.pdf](https://jotags.org/2019/vol7_issue4_article51.pdf)

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). Guilford Press.

Köksal, Y., Şeyhanlioğlu, H. Ö., & Oğuz, O. (2023). The role of local cuisine culture in regional development and determining the perceptions of local people: Ağrı example. *Journal of Gastronomy Hospitality and Travel*, 6(3), 1456–1476.

Kurtuluş, K. (2010). *Research methods*. İstanbul: Türkmen Kitapevi.

Manojlović, B., Cvetković, V. M., Renner, R., Grozdanić, G., & Perošević, N. (2025). The influence of socio-demographic factors on local attitudes towards sustainable tourism development in Skadar Lake and Durmitor National Parks, Montenegro. *Sustainability*, 17(7), 3200.

Minnaert, L., Maitland, R., & Miller, G. (2009). Tourism and social policy: The value of social tourism. *Annals of Tourism Research*, 36(2), 316–334.

Numanoğlu, E., & Güçer, E. (2018). In terms of local people, the Cittaslow movement perception: The case of Perşembe. *Journal of Multidisciplinary Academic Tourism*, 3(2), 11–22. <https://doi.org/10.31822/jomat.489899>

Onat, G. (2025). Investigation of behavioral intention towards bungalow tourism: A field study in Rize. *Kent Akademisi*, 18(2), 922–942. <https://doi.org/10.35674/kent.1511633>

Reisinger, Y., & Mavondo, F. (2008). Structural equation modeling: Critical issues and new developments. *Journal of Travel & Tourism Marketing*, 21(4), 41–71. [https://doi.org/10.1300/J073v21n04\\_05](https://doi.org/10.1300/J073v21n04_05)

Rize Provincial Directorate of Culture and Tourism. (2022). Types of tourism. T.C. Ministry of Culture and Tourism. <https://rize.ktb.gov.tr/TR-112787/turizm-turleri.html>

Rize Provincial Directorate of Culture and Tourism. (2024a). Tourist statistics. T.C. Ministry of Culture and Tourism. <https://rize.ktb.gov.tr/TR-341873/turist-istatistikleri.html>

Rize Provincial Directorate of Culture and Tourism. (2024b). Tourist statistics. T.C. Ministry of Culture and Tourism.

Song, H., Zhu, C., & Fong, L. H. N. (2021). Exploring residents' perceptions and attitudes towards sustainable tourism development in traditional villages: The lens of stakeholder theory. *Sustainability*, 13(23), 13032.

Stieb, J. A. (2009). Assessing Freeman's stakeholder theory. *Journal of Business Ethics*, 87, 401–414.

T.C. Ministry of Culture and Tourism. (2023). Trabzon accommodation tourist statistics. <https://basin.ktb.gov.tr/TR-362803/trabzon39da-2023-yilinda-1-milyon-319-bin-299-turist-konakladi.html>

Tabachnick, B. G., & Fidell, L. S. (2014). *Using multivariate statistics* (6th ed.). Pearson Education Limited.

Thapa, K., King, D., Banhalmi-Zakar, Z., & Diedrich, A. (2022). Nature-based tourism in protected areas: A systematic review of socio-economic benefits and costs to local people. *International Journal of Sustainable Development & World Ecology*, 29(7), 625–640.

Theodoulidis, B., Diaz, D., Crotto, F., & Rancati, E. (2017). Exploring corporate social responsibility and financial performance through stakeholder theory in the tourism industries. *Tourism Management*, 62, 173–188.

Torres-Delgado, A., & Palomeque, F. L. (2012). The growth and spread of the concept of sustainable tourism: The contribution of institutional initiatives to tourism policy. *Tourism Management Perspectives*, 4, 1–10.

Trabzon Provincial Directorate of Culture and Tourism. (2025). Tourism. T.C. Ministry of Culture and Tourism. <https://trabzon.ktb.gov.tr/TR-57691/turizm.html>

Ünal, Ç., & Yücel, B. (2018). Perceptions and attitudes of local people in the development and management of rural tourism: Odemiş/Birgi example. *Journal of Eastern Geography*, 23(39), 113–130.

Yeşiltaş, M. (2009). Evaluation of tourism opportunities in the Black Sea region with SWOT analysis. *Journal of Adiyaman University Institute of Social Sciences*, (3), 250–269.