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The Effect of **Tourist Experience** on **Environmentally Responsible Behaviour**: The Mediating Role of Environmental Sensitivity

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Abstract | This paper aims to examine the effects of the tourist experience on environmentally responsible behaviour and the mediating role of environmental sensitivity. Additionally, it was examined whether the impact on environmentally responsible behaviour differs between men and women. The study was conducted on tourists visiting Yoroz Urban Forest in Ordu, Türkiye. 279 tourists filled out face-to-face questionnaires between May and October 2021. The convenience sampling method was used to collect data from the sample group. Tourist experience was tested in the form of two sub-factors: Resource & Environmental Experience and Facility Management Experience. SmartPLS program was used for data analysis. Since the scales are reflective, the covariance-based structural equation model (CBSEM) method was used. According to the result, resource & environmental experience, facility management experience, and environmental sensitivity positively and significantly affected environmentally responsible behaviour. In addition, environmental sensitivity has a positive mediation effect between tourism experience and environmentally responsible behaviour. However, the mediation effect of environmental sensitivity is partial.

Keywords | Tourist experience, environmentally responsible behavior, environmental sensitivity, Türkiye

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1. Introduction

The tourism industry contributes to social, cultural, and economic development at different levels (e.g., international, national, and regional) (Elmia & Pritavi, 2023). Therefore, many infrastructures and superstructures positively impact global tourism development through government institutions. In addition, countries promote their natural and cultural heritage as tourism products and present them to international visitors with new activities. However, the mobility of tourists causes particular problems, such as environmental pollution and the destruction of nature in the destination areas. In this context, it is vital to take measures to protect the sustainability and characteristics of the destinations.

Governments take various measures to accept a limited number of visitors and create natural and sustainable areas. Recreational use capacities are the most important of these measures (Aall & Koens, 2019; Ollivaud & Haxton 2019; Scheske, et al.,2019; Roxas, et al., 2020). In other words, these studies are also referred to in the literature as recreation ecology (Giglio, et al., 2020; Sumanapala & Wolf, 2019). Although it is crucial for tourism operators and local authorities to take such measures, tourists who lack tourism awareness do not show the necessary sensitivity to the area when they visit destinations. Therefore, all prevention efforts may be in vain. Tourists need to be made aware of this issue to ensure sustainability. It is also necessary to raise people's awareness of respect for nature. Therefore, the administrations of countries and regions worldwide are trying to raise people's awareness by putting up public spotlights or signs inviting people to this sensitivity at the destination visited. In addition, many awareness activities are carried out in educational institutions or social networks to highlight the need to protect natural areas (Moons et al., 2020).

Tourism or recreational activities in nature have become indispensable for people as they spend their lives in concreted structures in big cities and are constantly working or confined in them. When people have the opportunity, they visit destinations with natural resources that offer them the opportunity to live in nature during their vacations. As a result, people are exposed to different experiences that can move them toward motives such as knowing the value of natural areas, behaving respectfully, and protecting them. Since the 2000s, catastrophic threats such as pollution and global warming have also demonstrated the need to protect natural resources. In addition, the COVID-19 pandemic that began in the last week of October 2019 has trapped people in their homes. This situation has shown people the importance of having freedom and spending time outdoors (Hennein et al., 2021). When all these factors come together, people can have experiences based on the environment or activities in natural resources, and these experiences can enable them to have more sensitive behaviour toward the environment (Galvani et al., 2020). In addition, people's sensitivity to the environment can increase by considering the environmental threats they experience, along with environmentally responsible behaviour (ERB).

Research is structured at the centre of questions such as: does the tourist experience affect environmentally responsible behaviour? Is there a mediating effect of environmental sensitivity to this effect? Within this context; this study investigates the influence of resource & environmental experiences and activities (tourist experiences) on ERB. It also examines whether environmental sensitivity has a mediating effect on tourist experiences of ERB. Lastly, it was tested whether environmentally responsible behaviour differed between male and female tourists. Unfortunately, the authors have yet to find a study in the literature on the urban forest of Ordu Yoroz and the mediation role of environmental sensitivity in the effect between tourist experience and ERB. Therefore, the study has an original value.

2. Theoretical framework

2.1. Tourist Experience and Environmentally Responsible Behaviour

Individuals are influenced or acquire knowledge through experience, observation, or participation (Merriam-Webster, 1993). Experiments are not spontaneous; they are special events that result from specific effects (Schmitt, 1999). In other words, experiences are the perceptions and information consumers have from interacting with the various products created by the service provider (Gupta & Vajic, 2000). The visitor's experience, on the other hand, is a concept that results from the tourist's interaction with various elements of the consumer's tourism experience. Despite the great interest of tourism researchers, a consensus on the definition of the concept of tourism experience has yet to be found (Xu et al., 2018). Boorstin (1964) considers the tourist experience as a trivial, superficial, meaningless activity. MacCannell (1973) describes the concept as a modern person's search for authenticity and representative experience. Xie (2005) on the other hand, states that the tourist experience is a mental and psychological satisfaction that results from the tourist's participation in tourist activities and is the essence of tourism. Tourists experience certain events and participate in activities during their trips. All these experiences remain with them as memories throughout the trip (Cunha et al., 2023).

Several theories in the literature facilitate the explanation of the concept of the tourist experience. For example, the expectation-confirmation theory allows for comparison with post-experience expectations of the service experienced (Parasuraman et al., 1994). In addition, involvement theory (Havitz & Dimanche, 1990), which examines the degree to which tourists are involved in activities and indicates whether this involvement is permanent or situational, contributes to the explanation of the tourist experience. On the other hand, the theory of liminality, based on the assumption that the tourist moves from mediocrity to unusualness and returns to ordinariness again (Turner, 1969), asserts that the tourist's experience is shaped by the conditions of the ambivalent situation in which they are trapped between the values of the environment in which they are decoupled and the values of the place in which they arrive. Another vital contribution to the explanation of tourist experiences is provided by the gamification theory/role play theory (Pearce, 1982). According to this theory, tourists determine the number of roles for themselves, depending on the situation, e.g., familiarity or unfamiliarity, mobility, or quiet desire to travel. They may take different roles in different situations and demand different experiences. For example, a tourist who wants hedonistic experiences today may be an adventure tourist tomorrow (Pearce, 1982). This theory suggests that even tourists' ERB is not due to environmental sensitivity but that they sometimes behave according to their role in their experience. The flow and arousal theory (Csikszentmihalyi, 1975) also suggests that the stimuli tourists experience are critical to their behaviour. In this context, the tourist experience is related to the individual's anticipation of touristic events through expectations, the events they have experienced during the trip, and the last thing to remember the events (Larsen, 2007). The visitor experience is also an essential precursor of ERB. Tourists who have experiences in facilities/areas where natural resources are conserved satisfactorily, and sustainability of these resources are tried to be ensured will be more willing to exhibit ERB (Wu et al., 2022).

ERB is attitudes that contribute to promoting environmental sustainability and minimizing negative environmental impacts. Concepts that have similar structures to ERB can be listed as environmental protection behaviour, environmentally responsible behaviour, environmental behaviour, environmentally friendly behaviour, pro-environmental behaviour, and ecological behavi-

our (Dolnicar et al., 2019; Li et al., 2019). All of these concepts have in common that they express ERB. Tourists' ERB is considered a significant factor in the success and sustainability of ecotourism development (Pearce et al., 2021). The value-belief-norm (VBN) theory is the most used theory (Stern et al., 1999) to explain the behaviour of understanding and adopting the environment. VBN is based on the idea that individuals feel compelled to take appropriate actions when they feel that valuable objects are threatened and when they believe that their actions can help restore those values (Xu et al., 2018). Tourism researchers show that ERB is associated with environmental attitude, social identity, and experience (Khan & Khan, 2022; Liu et al., 2020; Ramkissoon, 2020). All these variables that express how people feel and think, and their internal characteristics significantly influence ERB (Tsendsuren, 2021). ERB links the environmental impact of a destination to ecotourism based on tourist behaviour (Cheng et al., 2017). However, ERB is a concept that expresses the attitude of not only tourists but also local people toward nature (Confente & Scarpi, 2021). There is a positive relationship between ERB and tourist experience. Xu et al. (2018) found a positive relationship between tourist experience and pro-environmental behaviour in tourists visiting Nansha Wetland Park in China. In this context, the research sought answers to the following hypotheses.

H_1: *Resource & environmental experience has a positive and significant impact on environmental sensitivity.*

H_2: *Facility management experience has a positive and significant impact on environmental sensitivity.*

H_3: *Environmental sensitivity has a positive and significant impact on ERB.*

2.2. The Mediating Role of Environmental Sensitivity

Environmental sensitivity is an empathetic view of the environment and a harmonious relationship with the natural environment (Wu et al.,2022). It is a concept that encompasses both a liking for natural environments and an intention to act to protect those environments and represents a concern for the environment. Environmental concern influences individuals' high environmental sensitivity, attitudes, and behavioural norms (Wang et al., 2020). Studies in tourism that focus on environmental awareness have found a positive relationship between individuals' environmental sensitivity and the development of pro-environmental behaviours (Cheng & Wu, 2015). Many studies show that people who are sensitive to environmental sustainability issues are more open to the adverse environmental impacts of tourism (Olearnik & Barwicka, 2019). According to the study's results, environmental sensitivity can be considered a crucial factor for residents' and tourists' sense of responsibility for the environment. It is argued that robust personal attitudes toward the environment strengthen the link between awareness of the negative impacts of tourism and taking responsibility (Confente & Scarpi, 2021).

Individuals face numerous barriers when it comes to engaging in (Seamfix, 2023) Environmental Responsible Behaviour (ERB). One significant limitation is the lack of awareness due to insufficient education and information about the environmental impacts of their actions. Moreover, the higher cost of environmentally friendly products and practices can be prohibitive, particularly for those with limited financial resources. Convenience also plays a crucial role; sustainable options often require more effort, time, and changes to established routines, making them less attractive. Additionally, access to green products and services can be limited, especially in rural or underserved areas (Turner, 2018). Many individuals perceive their efforts

as insignificant in the grand scheme of global environmental issues, leading to apathy and reduced motivation. Social norms and peer pressure, which can either support or hinder eco-friendly practices, further influence behaviour. Long-standing habits and routines pose another challenge, as these can be difficult to change even with awareness of more sustainable options. The abundance of information on environmental issues can be overwhelming, and contradictory messages may lead to confusion and inaction. Individuals often doubt their ability to make a meaningful difference, resulting in a lack of engagement in ERB. Cultural and societal influences also play a role, as beliefs and values can either support or hinder sustainable behaviours (Chaney, 2011). Psychological distance, where environmental issues are perceived as distant and irrelevant to daily life, further disconnects individuals from engaging in ERB. The lack of infrastructure, such as recycling facilities and public transportation, limits the ability to act sustainably. Political and economic barriers, including unsupportive government policies and incentives, also affect behaviour. Lastly, resistance to change and a preference for the status quo, along with personal beliefs and values that may not align with environmental sustainability, highlight the need for tailored interventions to encourage ERB. Understanding these limitations is crucial for designing effective interventions and policies that promote environmentally responsible behaviours at the individual level (Pearson vd., 2018). In this context, the research sought answers to the following hypotheses.

H_4: *Environmental sensitivity mediates positively between resource & environment experience and ERB.* H_5: *Environmental sensitivity mediates positively between facility management experience and ERB.*

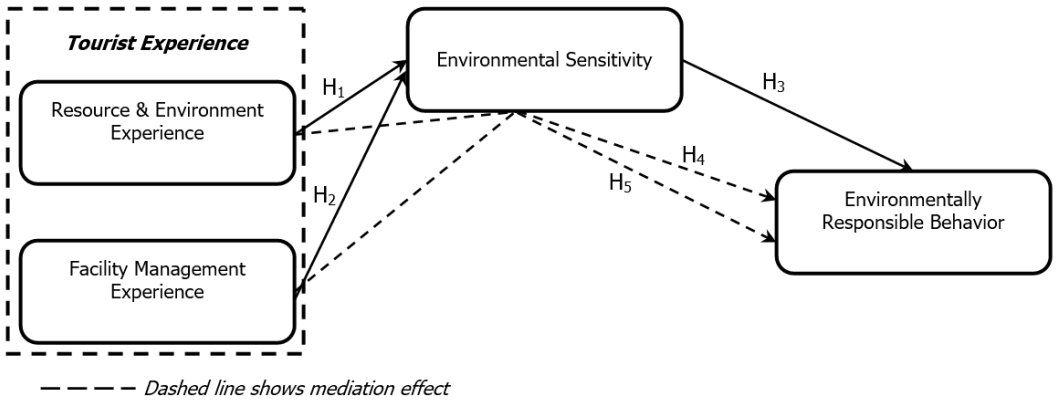

Figure 1 | Research Model

3. Methods

3.1. Sample and data collection

The population consists of visitors to the Ordu Yoroz Urban Forest in Türkiye. The main reason Yoroz Urban Forest is preferred is that, despite attracting a large number of tourists, it has preserved its natural beauty and unspoiled nature. Moreover, Yoroz Urban Forest is a young tourist region with significant potential for tourism development. The continuation of this development without harming Yoroz Urban Forest's nature and sustainability is related to the cognitive attitudes of its visitors. In this context, conducting this study focused on ERB in Yoroz Urban Forest becomes understanda-

ble and meaningful. The research was previously presented as an extended version at a congress (see Kement et al., 2021) and was developed in line with the suggestions made at the congress and turned into a full-text paper. The survey was conducted among the visitors between May and October 2021. The study relied on a questionnaire technique as the method of data collection. Since the population is too large, the convenience sampling method was used to collect the data quickly and effectively (Sedgwick, 2013). The convenience sampling method, a non-probability sampling technique commonly used in quantitative research, was used in that statistical information about the study population couldn't be found in the literature, and it was not possible to reach the entire population. This sampling type was chosen because the number of visitors to the Yoroz Urban Forest is unknown and cannot be categorized differently. The reason for choosing the convenience sampling method is to collect data quickly and effectively (Malhotra, 2004). Additionally, the statements were subjected to randomness analysis and it was determined that all of them were not significant due to the Runs test. Since a small number of variables were used in the study, the sample size was 279, which is five times higher than the number of variables (Tabachnick & Fidell, 2001). The questionnaire form was pre-tested, which shows that the respondents had no difficulty understanding the questions. This means that the variables were found to be valid and reliable.

Figure 2 | Yoroz Urban Forest Map
Source: Çekirdek Gezi, 2022

3.2. Questionnaire Design

The questionnaire form consists of two parts. The first part contains questions about the respondents' demographic data, such as gender, age, education level, and income. The second part consists of eight items to analyze the tourist experience adapted from Xu et al. (2018), four items to analyze ERB items adapted from Vaske and Kobrin (2001), and three items to analyze environmental sensitivity adapted from Cheng and Wu (2015). The items were measured on a five-point scale, addressing respondents in the "strongly disagree - agree (1-5)"category.

3.3. Data analysis

Smart PLS program was used to calculate the model validity, reliability and test the hypotheses. Before validity and reliability analysis, confirmatory tetrad analysis (CTA) (Gudergan et al., 2008) was

conducted to determine which method should be used for data analysis. ERB, environmental sensitivity, and tourist experience sub-factors were found to be "0"in the confidence interval. Therefore, it was decided to use the covariance-based structural equation model (CB-SEM) for the analysis (Hair et al., 2019), according to which scales have a reflective structure.

Cronbach's alpha (α) and rho_a (Hair et al., 2019) were tested for reliability during the analysis phase of the measurement model. For internal consistency, composite reliability (rho_c) (Bagozzi & Yi, 1988) was analyzed. Outer loadings (Hair et al., 2019) were calculated for indicator reliability (confirmatory factor analysis). For convergent validity, the averaged variance extracted (AVE) was calculated. Fornell and Larcker criteria (Fornell & Larcker, 1981), Heterotrait Monotrait Ratio (HTMT) (Henseler et al., 2009), and cross-loadings (Hair et al., 2019) were calculated for discriminant validity. R^2, f^2, PLSPredict, and IPMA tests were performed for structural and predictive model assessment. Structural equation model analysis was performed for hypothesis testing. Also, the mediating effect was calculated. To determine the mediator effect type, Zhao et al. (2010) evaluated in parallel with the opinion. Finally, it was tested whether environmentally responsible behaviour differed between male and female tourists. To understand this, multiple group analysis (MGA) was tested. Before performing MGA, the suitability of the sample for the difference test was examined with measurement invariance of composite models (MICOM) analysis.

4. Results

4.1. Respondents Profile

Regarding the gender of the respondents, 64.9% are male, and 35.1% are female. Looking at age, 22.2% of the respondents are 18 to 24 years old, 20.8% are 45 to 54 years old, 20.1% are 25 to 34 years old, 19.7% are 35 to 44 years old, 12.5% are 55 to 64 years old, and 4.7% are 65 years old or older. In addition, 46.6% of respondents have a bachelor's degree, 19.7% have an associate degree, 15.8% have a college degree 10% have a master's degree, and 7.9% have a primary school diploma, according to an analysis of education level. Regarding respondents' income perception, 36.2% answered low, 22.6% very low, 18.6% medium, 15.8% high, and 6.8% very high.

4.2. Measurement Model Assessment

The Cronbach alpha and rho_a reliability scores for all scales were above .70 (Hair et al., 2019). Also, rho_c is higher than .60 (Bagozzi & Yi, 1988). AVE is higher than .50 (Fornell & Lacker, 1981). The outer loadings (*lambda*) of all scale items were higher than .50 (Kaiser, 1974) (see Table 1). The chi-square (X^2) of the model is 464.879, the standardized root mean squared residual (SRMR) is .073 (.08 $\leq$) (Hu & Bentler, 1999), the normed fit indices (NFI) is .761 (Byrne, 1994), and the root mean squared (rms Theta) is .199 (Henseler et al., 2009).

Discriminant validity was tested using the Fornell-Larcker criterion and. It was found that the correlation loadings between variables were less than the square root of the AVE of each variable (Fornell & Larcker, 1981) (see Table 2).

The Fornell Larcker criterion is not sufficient for discriminant validity (Hair et al., 2019). For this, HTMT was also calculated. The HTMT scores of the scales are below 1.00 (Voorhees et al., 2016) (See Table 2). Finally, the cross-loadings between the items of each scale were compared with the correlation loadings with the other scale items. Correlation loadings between the items of the scales were higher than (Hair et al., 2019) the correlation loadings with the other scale items.

Table 1 | Measures' Validity and Reliability Scores

	Constructs	*λ*	rho_a	rho_c	AVE
Tourist Experience					
Resource & Environment Experience **(EnvEx) (α= .81)**			.85	.86	.57
1	*The air in the Yoroz Urban Forest is fresh*	.768			
2	*The air in the Yoroz Urban Forest is clean*	.706			
3	*The soil is in good condition*	.637			
4	*The plants in the Yoroz Urban Forest are special and plentiful*	.832			
5	*Yoroz Urban Forest recreation activities here do not harm the ecological environment*	.818			
Facility Management Experience **(FacEx) (α=0.82)**			.83	.89	.73
1	*The Yoroz Urban Forest environment is seldom destroyed*	.861			
2	*Information and materials on Yoroz Urban Forest ecology education are well-provided*	.852			
3	*The facilities are environmentally friendly*	.863			
Environmental Sensitivity (EnvS) (α= .85)			.85	.91	.77
1	*I appreciate the environment of this place*	.865			
2	*I enjoy well-preserved environments*	.883			
4	*I care about the impact of my habits on the environment of this place*	.885			
Environmentally Responsible Behavior (ERB) (α= .82)			.84	.88	.65
1	*I would talk to friends or relatives about environmental issues*	.771			
2	*I would try to persuade others to adopt environmentally responsible behavior*	.784			
3	*I would report it to Yoroz Urban Forest managers if I spotted improper behaviors*	.814			
4	*I would pick up the rubbish that I see during my trip to Yoroz Urban Forest.*	.854			

λ=Factor loadings, rho_a and rho_c=Composite reliability, AVE=Average variance extracted, α=Cronbach Alpha

lambda=Factor loadings, rho_a and rho_c=Composite reliability, AVE=Average variance extracted, α =Cronbach Alpha

Table 2 | Discriminant Validity

Discriminant	**Fornell Larcker Criterion**				**Heterotrait-Monotrait Ratio (HTMT)**			
Construct	**ERB**	**EnvEx**	**EnvS**	**FacEx**	**ERB**	**EnvEx**	**EnvS**	**FacEx**
ERB	**.806**							
EnvEx	.169	**.756**			.196			
EnvS	.592	.187	**.878**		.693	.210		
FacEx	.442	.284	.319	**.859**	.532	.345	.375	

Note. Bolded numbers are the square root of AVE, EnvEx= Resource & environment experience, FacEx= Facility management experience, EnvS= Environmental sensitivity, ERB= Environmentally responsible behaviour

4.3. Structural Model Assessment

The InnerVIF values were calculated to determine if the scales used in the study had multiple collinearity problems and ranged from 1 to 5 (Hair et al., 2017). The coefficient of determination (R^2) was calculated as ERB= .351 and EnvS= .112. Q^2 was calculated as ERB= .218 and EnvS= .079. The effect size of EnvS on ERB (f^2) was calculated as .540, and the f^2 value for *resource and environmental experience* and *facility management experience* on *environmental sensitivity* was calculated as .011 and .087, respectively.

4.4. Predictive Model Assessment and IMPA Test

To determine the predictive capacity of the research model, the redundancy index with cross-validation ($Q^2_{predict}$) index (Chin, 2010; Shmueli & Koppius, 2011) and root mean square error (RMSE) and MAE mean absolute error (MAE) results were compared. $Q^2_{predict}$ has a positive result. Since the prediction errors didn't show a symmetrical distribution, PLS-SEM values were compared over MAE values. As a result of the comparison, the predictive power of the model was found to be low (Shmueli et al., 2019) since the LM values were higher than the PLS-SEM values in a few of the dependent variable items.

IPMA (importance-performance matrix analysis) is a grid analysis that explains the overall "importance" effects of the PLS-SEM estimation together with the average "performance" score (Groβ, 2018; Rigdon et al., 2011). The IPMA-PLS technique was used to develop more precise recommendations for *environmentally responsible behavior* over dependent variables (EnvEx, FacEx, and EnvS). IPMA provides benefits for respondents and hotel/restaurant managers operating in the Yoroz Urban Forest to consider which factors to consider for planning or implementation.

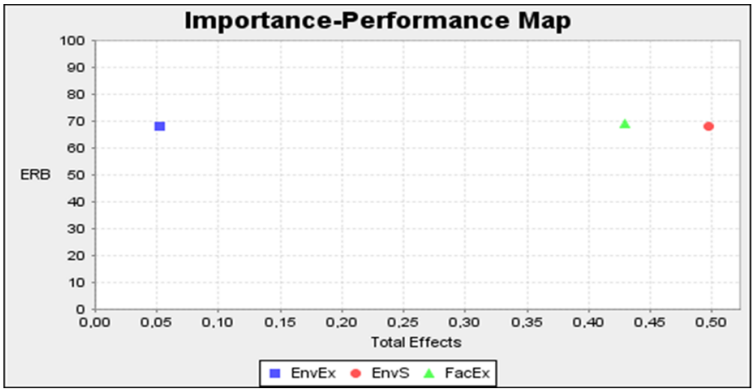

Figure 3 | Map of importance-performance of ERB

When Figure 3 is examined, it is seen that *environmental sensitivity* and *facility management experience* are of high importance and performance for *environmentally responsible behaviour*. Figure 3 shows the high importance of *environmental sensitivity* and *facility management experience* for *environmentally responsible behaviour*. On the other hand, although the level of importance of tourists for *resource and environmental experience* towards *environmentally responsible behaviour* is high, it is seen that the level of performance is low. This result shows that the local hotels/restaurants etc. should take precautions to increase the performance of tourists. On the other hand, it shows that they should adopt more *environmentally sensitive* actions for *environmentally responsible behaviour*. The importance of tourists was over 65% for all scales. Performance ratios were in the range of 0.70-0.05. While *environmental sensitivity* is the highest performance ratio, *resource and environmental experience* is the lowest performance ratio. As a result, performance upgrades should be applied in this structure, as it is *environmental sensitivity* that has the highest importance and performance rating.

4.5. Hypothesis Testing

The *resource & environmental experience* ($\beta_{EnvS>ERB}$= .105, t= 2.124, p< .05) and the *facility management experience* ($\beta_{FacEx»EnvS}$= .289, t= 4.492, p< .001) have a significant positive effect on *environmental sensitivity*. Accordingly, hypotheses H_1 and H_2 are accepted. In addition, *environmental sensitivity* ($\beta_{EnvS>ERB}$= .592, t= 13.174, p< .001) has a significant and positive effect on *environmentally responsible behaviour*. Therefore, H3 is accepted (see Table 3).

Table 3 | Structural Equation Model Analysis

Hypothesis	B	M	STDEV	*t*-statistic	*p*-value	*Results*
EnvEx -> EnvS	.105	.125	.049	2.124	.034**	*Accepted*
EnvS -> ERB	.592	.592	.045	13.174	.000***	*Accepted*
FacEx -> EnvS	.289	.284	.064	4.492	.000***	*Accepted*

p=<0.001*; **p=<0.05**** EnvEx= Resource & environment experience, FacEx= Facility management experience, EnvS= Environmental sensitivity, ERB= Environmentally responsible behavior, β= Beta coefficient, M= Mean, STDEV= Standard deviation.

Table 4 | Mediation Effect

Hypothesis	β	M	STDEV	*t*-statistic	*p*-value	Results
EnvEx -> EnvS -> ERB	.062	.074	.029	2.129	.034*	*Accepted*
FacEx -> EnvS -> ERB	.171	.170	.046	3.752	.000***	*Accepted*

p=<0.001*; **p=<0.05*** EnvEx= Resource & environment experience, FacEx= Facility management experience, EnvS= Environmental sensitivity, ERB= Environmentally responsible behavior, β= Beta coefficient, M= Mean, STDEV= Standard deviation.

In the study, the direct effect of *resource & environmental experience* on *environmentally responsible behaviour* and the indirect effect ($\beta_{FacEx>EnvS>ERB}$=- .171, t= 3.752, p< .001) were significant. Accordingly, the acceptance of the H_4 means that there is partial mediation. As well, the direct effect of the *facility management experience* on *environmentally responsible behaviour* and the indirect effect ($\beta_{FacEx>EnvS>ERB}$= -.171, t= 3.752, p< .001) were significant. Therefore, acceptance of H_5 means that there is partial mediation. The VAF (Variance Accounted for) value was calculated to determine the effect size on environmental sensitivity (see Table 5). Consequently, VAF values for H_4 and H_5 were calculated as "1.00"(Hair et al., 2017).

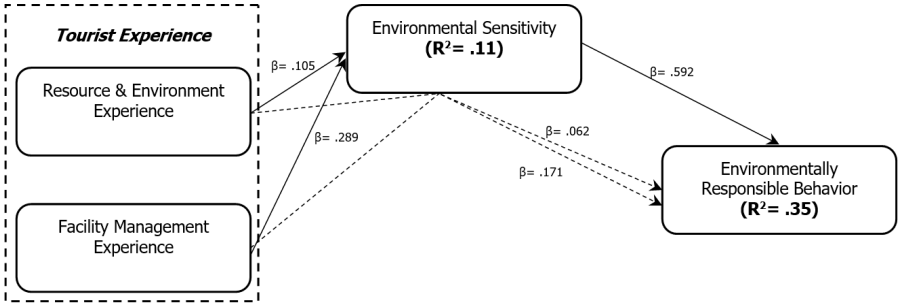

Figure 4 | Research Model Results

4.6. Multiple Group Analysis

In the study, MGA was performed to determine whether the hypotheses differed between men and women. Before analysis, invariance measurement assessment (Henseler et al., 2016) was performed using MICOM. As a result of MICOM, configural and compositional invariance conditions were met. In addition, the mean values and variances of composite test results were as desired (Cheah et al., 2020). Then, MGA was performed and bootstrapping results were monitored. As a result of the analysis, it was examined whether there was a significant difference between male and female tourists visiting the Yoroz urban forest. As a result, the effect of *facility management experience* (β_{female}=.603; β_{male}= .590) and environmental sensitivity (β_{female}= .314; β_{male}= .272) on *environmentally responsible behaviour* is higher in females. On the other hand, there is no significant difference between males and females in the effect of *resource & environment experience* on *environmentally responsible behaviour*.

5. Conclusion and Discussions

This study investigates the effects of the experiences of local and foreign tourists visiting Yoroz Urban Forest in Ordu on their environmentally responsible behaviour. In addition, the study examined the role of mediating environmental sensitivity between the tourist experience and environmentally responsible behaviour. It was also tested whether environmentally responsible behaviour differed between male and female tourists. The research results showed that resource and environmental experience positively and significantly influence environmental sensitivity, although it is a small effect. Nevertheless, the Yoroz Urban Forest still needs to suffer more from carrying capacity to environmental degradation. In addition, several infrastructure projects are being implemented by local authorities in the Yoroz Urban Forest that are detrimental to the environment. There is concern that road construction, especially for motor vehicles, may affect the environmentally responsible behaviour of tourists. As it is, it enables tourists to develop environmental behaviours. However, the existing natural and clean condition must be maintained.

According to the research results, resource and environmental experience and facility management experience positively affected environmental sensitivity with a high effect size. Tourists have a positive attitude toward the proper management of resources. There are many studies in the literature that indirectly support this result (Diallo et al., 2022; Sharma & Nayak, 2019; Sørensen & Jensen, 2015; Tsendsuren, 2021). Cai and Zhu (2021) identified a series of experiences that were effective in increasing environmental sensitivity and suggested that among these experiences, external experiences had the strongest impact. Similarly, Diallo et al. (2022) reveal the effects of experiences on tourism sustainability and the nature conservation attitude. Also, Xu et al. (2018) found a positive relationship between tourist experience and the pro-environmental behaviour of tourists visiting Nansha Wetland Park in China. Tourists can damage the ecosystem while they use opportunities by nature (Chidakel et al., 2021).

According to Mouillot and Pupion (2017), tourists initially introduce invasive species into foreign ecosystems, trample on coral reefs, and collect wild resources as souvenirs. However, as tourists' experience with nature becomes stronger, their emotional attitude towards the environment also changes and they exhibit more environmentally responsible behaviours (Adongo et al., 2018). In this sense, it is a predictable result positive relationship between tourist experience and environmentally responsible behaviour. Local authorities protect the Yoroz Urban Forest. Resource management and efficiency can improve if planned, and sustainable practices are not implemented in the next period. Therefore, tourists value environmental sensitivity when visiting the Yoroz Urban Forest.

According to the research results, environmental sensitivity positively affected ERB. This is a predicted result. Environmental sensitivity, which is accepted as one of the variables that contribute to responsible ecological citizenship, is an "empathic perspective towards the environment", and they argued that there is a close relationship between environmental sensitivity and pro-environmental behaviour. Environmental sensitivity is the main antecedent variable of environmentally responsible behaviour. In other words, when tourists' environmental sensitivities towards destinations are important, it increases their emotional identification with locations. In addition, tourists also show responsible behaviour towards management in the destination (Cai & Zhu, 2021). Also, the results of Dolnicar et al. (2019), Lee and Jan (2015), Qiu et al. (2015), and Yan et al. (2018) studies support these findings. On the other hand, these studies, which consider environmental sensitivity and tourist experience as the precursors of environmentally friendly behaviour, also reveal the importance of ERB for natural areas and sustai-

nable tourism (Su et al., 2020; Su & Swanson, 2017). Therefore, tourists who love nature and are sensitive to the ecological cycle visit Yoroz Urban Forest. Furthermore, the results show that the destination preserves its naturalness and that this nature-preserving practice should be realized in the following process.

According to the research results, it was found that tourists' environmental sensitivity positively mediates between ERB-EnvEx and ERB-FacEx. Although there is no study directly compatible with this result, Cheng and Wu's (2015) study, which revealed that environmental sensitivity mediates the effect of environmental knowledge on pro-environmental behaviour can be similar. Considering the close relationship between knowledge and experience, it indirectly supports the results of this study. On the other hand, Wu et al (2022), who concluded that the tourist experience affects pro-environmental behaviour and that nature bonding mediates this effect, also show similarity with our results. Collado et al. (2013) found a strong relationship between tourism experience and environmentally responsible behaviour and concluded that environmental sensitivity will strengthen this relationship. Lee and Jan (2015) concluded that recreational experience positively affects environmentally responsible behaviour and environmental attitude, which is a result of environmental awareness, also mediates this effect.

When tourists visit Yoroz Urban Forest, their environmental awareness makes them more sensitive to the environment. The climate crisis, which has become a global problem, and the COVID-19 pandemic, which began in late 2019 and forced people to live a restricted life, caused people to be more respectful of nature. As the number of people who develop environmental awareness increases, natural destinations such as the Yoroz Urban Forest become more sustainable economic areas.

6. Implications

6.1. Practical Implications

The study revealed that the Yoroz urban forest is frequently preferred by tourists, especially for recreational activities. There is a direct relationship between the sustainability of recreational activities, the responsibility that tourists feel toward the environment, and their sensitivity toward nature (Winter et al., 2019). Research results have made this fact clearer. On the other hand, the tourist experience is different from the people's daily experiences and appeals to their subjective perceptions (Dillette et al., 2021). Therefore, in Yoroz Urban Forest, like every other recreational area, the characteristics that are perceived differently by people and that evoke subjective pleasure should be preserved. Otherwise, the risk of turning into traditional recreation areas, where people will experience the same in other places, will become possible. In this context, the following recommendations should be considered by decision-makers.

- Local authorities must expand their areas of activity in the Yoroz Urban Forest and carry out infrastructure works in this context. However, the works should be such that the destination remains natural. The destination should therefore be used on a sectoral level. However, industry representatives should adopt an environmentally friendly approach to their activities and develop studies that stimulate visitors.

- Forests have a high potential for recreational activities in nature. Yoroz Urban Forest is a good example of this situation as an untouched and preserved forest. Therefore, while using the tourism potential of the Yoroz Urban Forest, local governments should not exceed its physical capacity and cause damage to the natural texture.

- Research has shown that there is a relationship between environmentally responsible behaviours and tourist experience, and environmental sensitivity has a mediating effect. This situation gives a clue to the decision-makers that tourists can manipulate their behaviour in favour of the environment during the experience. Managers should see this as an opportunity and integrate the content of the experiences they promise to visitors with policies that will raise environmental awareness and turn into environmentally friendly behaviour.

- Tourists visit forests with many different motivations. However, a balance should be established between naturalness and safety during activities in the forest (Winter et al., 2019). Care should be taken so that the measures taken for protection do not harm the naturalness of the forest. On the other hand, an environment should be created where they feel safe while experiencing the greenness of the forest and forest.

- Even though forests are made up of the same tree clusters, they are unique areas with different characteristics and the potential to offer different experiences to tourists. Although it has the general features of the Black Sea region in the Yoroz Urban Forest, it is a forest with a unique wildlife composition. As the tourist experience focuses on differences, more emphasis should be placed on the recreational activities that can be realized in the Yoroz Urban Forest.

Tourists and locals should be aware of the environment, and this approach should be a priority policy for sustainable solutions. Stakeholders should see the Yoroz Urban Forest as a natural value of their city. Therefore, it will increase their environmental sensitivity. In addition, the environmentally responsible behaviour of the local people will also affect the attitudes and behaviours of tourists and visitors. This effect can be explained by the assumptions of the 'broken window theory' (Wilson & Kelling, 1982). This theory claims that "no one takes care not to pollute what is already contaminated or does not feel guilty when polluting it."in criminal psychology.

6.2. Theoretical implications

As in a similar study, there is a paradox between nature conservation and tourism activities in this study. Does nature-based tourism destroy the nature that is the subject of it? The answer is the environmentally responsible behaviours and environmental sensitivities of tourists participating in nature-based tourism activities during their experiences. The visit of tourists inevitably creates environmental impacts such as the construction and maintenance of roads and paths; Trapping of vegetation and soil erosion and the spread of resistant species such as weeds are the most apparent side effects of the nature-based tourist experience (Wolf et al., 2019). There are studies on the relationship between tourists and the environment dealing with both recreational activities and environmental dynamics with a holistic approach (Li et al., 2019; Olearnik & Barwicka, 2019; Ramkissoon, 2020). Testing the same recreational activity type in different environmental conditions and testing different recreational activity types in the same environmental conditions will increase the effect of tourist experience on environmentally sensitive behaviour. On the other hand, environmental sensitivity may differ according to individual differences. Therefore, individual differences may play a role in reducing or increasing the role of environmental sensitivity in the effect of tourist experience on environmentally sensitive behaviour (Greven et al., 2019; Grubesic et al., 2019). It can be interpreted from a broader perspective when the results are evaluated within the context of sub-factor re-

lations.

6.3. Managerial and Policy Implications

Based on the results of this study, several recommendations can be made for policymakers, managers, and other relevant parties involved in the management of tourist destinations to promote environmentally responsible behaviour and enhance tourist experiences:

Integrating Environmental Education into Tourism Policies: Policymakers should emphasize including environmental education in tourism activities. This strategic move can be accomplished by developing guidelines and standards for tour operators and destination managers, ensuring that tourists are well-informed about local environmental issues and conservation efforts. Educational components such as interpretive programs, guided nature walks, and informative displays will significantly enhance tourists' understanding of their role in environmental conservation (Kollmuss & Agyeman, 2002).

Promote Sustainable and Immersive Tourist Experiences: Destination managers should focus on creating and promoting tourism experiences that are not only enjoyable but also foster a deep connection with nature. These experiences should be designed to increase tourists' environmental sensitivity. Examples include eco-tours, wildlife conservation projects, and hands-on activities like tree planting or beach clean-ups. Engaging tourists in meaningful environmental activities can enhance their sensitivity and commitment to ERB (Vermeir & Verbeke, 2006).

Enhance Collaboration Among Stakeholders: Effective collaboration between policymakers, destination managers, tour operators, and local communities is crucial. Establishing partnerships can help develop and implement best practices for sustainable tourism. This includes creating accreditation schemes for eco-friendly tourism businesses, organizing joint promotional campaigns for sustainable tourism, and sharing resources and knowledge to foster a culture of environmental stewardship (Fielding et al., 2008). Active participation and contribution from all stakeholders are highly valued in this collaborative effort.

Develop and Implement Accreditation and Certification Programs: Accreditation and certification programs for tourism businesses that adhere to sustainable practices can incentivize and reward those striving to protect the environment. Policymakers and industry leaders should develop clear criteria for certification and promote these programs to encourage the widespread adoption of sustainable practices within the tourism sector (Thøgersen & Crompton, 2009).

Invest in Infrastructure that Supports ERB: Policymakers and destination managers play a crucial role in investing in infrastructure that facilitates environmentally responsible behaviour. This includes providing adequate recycling facilities, sustainable transportation options, and renewable energy sources at tourist sites. By doing so, tourists are equipped with the necessary tools to make environmentally friendly choices during their visit, thereby contributing to the overall sustainability of the destination (Schanes et al., 2016).

Use Technology to Enhance Environmental Sensitivity: Leverage technology to enhance tourists' environmental sensitivity. This can include mobile apps that provide information about the local environment and conservation efforts, augmented reality experiences that showcase the impact of environmental degradation, and virtual tours that highlight the importance of preserving natural habitats. Technology can make environmental education more engaging and accessible to a broader audience (Gifford, 2011). Monitor and Evaluate the Impact of Tourist Experiences: Regular monitoring and evaluation of tourist experiences and their impact on environmental sensitivity and ERB are essential. Destination managers should collect feedback from tourists to assess the effec-

tiveness of their programs and make data-driven improvements. This feedback can help refine educational content and enhance the overall quality of sustainable tourism offerings (Bamberg & Möser, 2007). Promote Awareness Campaigns: Conduct awareness campaigns highlighting the importance of ERB and tourists' roles in preserving natural environments. These campaigns can be run through various channels, including social media, tourism websites, and tourist sites. By raising awareness, tourists can be better informed and motivated to engage in environmentally responsible behaviour (Spence et al., 2012).

Encourage Long-term Behavioural Change: Develop programs that encourage tourists to continue practicing environmentally responsible behaviour even after their visit. This can be achieved through follow-up communications, such as newsletters that provide tips on sustainable living or updates on local conservation projects they supported during their visit. Encouraging tourists to adopt sustainable behaviours in their daily lives is crucial and can extend the impact of their positive tourist experiences, fostering a sense of empowerment and responsibility for environmental change (Stern, 2000). By implementing these recommendations, policymakers, destination managers, and other stakeholders can effectively enhance tourists' environmental sensitivity, leading to increased environmentally responsible behaviour. This approach benefits the environment and ensures the long-term sustainability and attractiveness of tourist destinations, instilling a sense of hope and motivation for a greener future.

6.4. Limitations and Future Research

This study is limited to the Ordu Yoroz Urban Forest in Türkiye. The questionnaire form was conducted among tourists visiting the target area. Residents were excluded from the study. In this context, future research should consider the destination from a recreational perspective. In addition, the factors that influence the environmentally responsible behaviour of tourists or recreationists can be considered from a broader perspective. According to the results, the following inferences can be made for future studies.

There is a need for studies that will reveal the experiences, environmentally responsible behaviours, environmental sensitivities, and environmental impacts of tourists in a more specific and concrete way. For example, multidisciplinary studies that reveal the quantitative change of nature-based tourism activities in biodiversity elements such as mammals, reptiles, and plant species in the Yoroz urban forest over the years (Ciach et al., 2017) can make significant contributions to the sustainability of tourism activities in the Yoroz Urban Forest. While tourists watch wildlife in nature, elements of wildlife watch tourists. Over time, wildlife can become accustomed to their presence if tourists are consistent and responsive. Experiments with simulating variables in tourist behaviour may be required to show how generalized the habit is. In this context, studies that follow the population and behaviour of animals in the wild can obtain more concrete outputs. For example, studies that will reveal the effect of this experience of tourists on the bird population and migration maps in the Yoroz Urban Forest, which is suitable for bird-watching tourism, may give essential clues regarding the sustainability of this type of tourism. Tourists interact with wildlife and experience their living conditions during the experience. This allows people to empathize more with elements of wildlife. As a result, tourists exhibit more responsible behaviour. Using less plastic and not leaving the residues after use to nature can be examples of such behaviours. On the other hand, the permanent effects of these behaviours, such as supporting policies to protect the environment and participating in such activities should be investigated.

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