



The Power of Perception: How Environmental Quality and Eco-Friendly Reputation of the Destination Drive Tourists' Environmentally Responsible Behaviors? An Exploratory Study

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Abstract: The current study aimed to explore how the environmental quality and environmentally friendly reputation of Imam Hassan City motivate environmentally responsible behavior among visitors to Imam Hassan City, within an embedded model of the impact of visitors' environmental commitment. With a purposive sample of (95) Iraqi visitors, the data were analyzed and hypotheses tested using structural equation modeling using the partial least squares (PLS-SEM) modeling method using the SmartPLS.4 software package. The study results showed that environmental quality and environmentally friendly reputation have a positive and significant impact on increasing visitors' environmental commitment. The study also concluded that environmental commitment has a positive and significant impact on motivating visitors' environmentally responsible behavior. The study also presented a set of recommendations, the most prominent of which are:

The importance of enhancing community awareness and commitment to sustainable tourism by implementing integrated tourism activities with environmental awareness and education initiatives to stimulate environmental behavior among visitors, prioritizing improving the image of Imam Hassan City and implementing environmentally sustainable practices and measures, in addition to the importance of intensifying public relations and marketing campaigns to manage the environmentally friendly reputation of Imam Hassan City.

Keywords: Environmental Quality, Eco-friendly Reputation, Environmental Commitment, Environmentally Responsible Behaviors, Imam Hassan City, Iraq.



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1. Introduction:

One of the main elements affecting the atmosphere of tourist locations is visitor behavior, which is also crucial to tourism-related activities. Tourist locations may experience direct or indirect environmental harm as a result of inappropriate visitor behavior. (Cheng & Chen ,2022:1 , He et al,2024: 2 , He et al,2018: 93).

These behaviors place enormous pressure on the management and sustainable development of tourism destinations. Therefore, reducing environmentally irresponsible visitor behavior is of paramount importance. Consequently, environmentally responsible visitor behavior has become an important research issue in tourism studies in recent years. (Zhao & Weng,2024:1). Environmentally responsible visitor behavior (ERBs) refers to “the actions visitors take to solve environmental problems and address environmental issues to fulfill their responsibilities, reduce

their negative environmental impacts, and contribute to the sustainable development of destinations.” It can also be defined as “behavior that consciously seeks to minimize the negative impact of one’s actions on the built and natural world.” (Bhatti & Alnasser, 2023:160) Therefore, promoting ERBs among visitors has become an important issue for both governments and tourism industry practitioners. It is crucial to identify tourists’ drivers and behaviors with regard to environmental conservation. (Liu et al., 2019:236). Perceptions and feelings about a place may have an impact on visitors’ environmental behaviors, according to cognitive appraisal theory, which holds that “perceptions and perceptions influence individual behavior.” It has been well-acknowledged that perceived destination quality is a cognitive construct that influences behavior in a variety of academic fields. Furthermore, another significant cognitive construct that has been found to be a forerunner to conduct is the reputation of an environmentally friendly location. (Su et al., 2019: 470).

Previous studies have shown that perceptions can be antecedents of commitment, and commitment can predict behavior.(Su et al., 2019: 471). Environmental commitment refers to “a psychological attachment to and a lasting orientation toward the environment” (Bhatti & Alnasser, 2023: 160).

Previous studies (He et al, 2018, Sahabuddin et al, 2023) have also indicated that “a higher level of environmental commitment is positively associated with an increased tendency to engage in environmentally responsible behavior”.

This implies that people who feel more accountable to the environment are more inclined to take proactive steps to protect the environment and its health. Considering how crucial eco-friendly visitor practices are to the long-term viability of tourism locations,

Researchers have conducted many studies on the topic of ERBs, influencing factors, formation mechanisms, etc. However, to the best of our knowledge, few studies have focused on studying environmental quality and environmental reputation in the field of Iraqi tourism, which have become increasingly important in shaping people’s environmental behaviors. The current study uniquely investigates the relationships between these constructs as visitors’ perceptions and their impact on visitors’ environmental commitment to the destination environment. Therefore, it is an introduction to environmentally responsible behavior specifically for visitors to the city of Imam Hassan, which is one of the attractive Iraqi tourist cities. Accordingly, the study problem can be formulated according to the following questions:

1. Does the environmental quality of Imam Hassan City affect visitors' environmental commitment?.
2. Does the environmentally friendly reputation of Imam Hassan City affect visitors' environmental commitment?.
3. Does environmental commitment affect the environmentally responsible behavior of visitors to Imam Hassan City?.

➤ Study Objectives

1. To provide a conceptual framework for studying and analyzing the structure of the current study's relationships: perceived environmental quality, environmentally friendly destination reputation, and environmental commitment in shaping the environmentally responsible behaviors of visitors to Imam Hassan City.
2. To better understand the elements that encourage ecologically conscious conduct in tourists visiting Imam Hassan City, which may help to mitigate adverse environmental effects.
3. The management of Imam Hassan City may find the study's findings useful in formulating plans to strengthen tourists' environmental commitment and encourage ecologically conscious conduct.

4. The new study greatly advances the corpus of information on visitors' environmentally conscious behavior, which has not gotten enough attention in this context.

➤ **The importance of the study**

The importance of the current study lies in its timely focus on environmental tourism behaviors, given global concerns about sustainability. Most environmental problems in tourist destinations are caused by uninformed visitor behavior.

As such, eco-friendly practices and the factors that influence them are of interest to tourism academics and have emerged as a key area of study in recent years. As stakeholders and important participants in the sustainable development process, tourists are an essential component of destinations' sustainable growth. In destination management, tourists are seen as key players who have a big impact on the sustainability of tourism. Reducing ecologically damaging tourist behavior is, therefore a crucial concern for researchers and destination management.

This study also expands current theoretical and practical frameworks by examining the unique relationships between environmental perceptions and visitor behavior.

The current study addresses the urgent need to research behavioral practices for environmental conservation at a tourist destination, specifically the Imam Hassan Visitor City, one of Iraq's most attractive tourist destinations.

2. Literature Review

➤ **Perceived Environmental Quality**

Perceived environmental quality describes the physical appearance of a tourist destination. It represents tourists' first impression of the destination and plays an important role in shaping their attitudes and behaviors related to the environment (Liu et al., 2019: 236). The environmental conditions of a destination send contextual signals to visitors indicating acceptable and normative behaviors. Thus, environmental quality may influence what an individual considers acceptable behavior. Higher levels of environmental quality as perceived by tourists can generate a more positive attitude toward environmental protection and can enhance the value an individual perceives they receive in a destination, motivating them to engage with the destination in an environmentally friendly way. As a result, tourists are more inclined to cherish and defend locations that they believe to be ecologically friendly.(He et al., 2024: 4). According to cognitive evaluation theory, an individual's perception of things affects his emotions, which in turn affect his behavior.

A sort of "psychological contract," the visitor's environmental commitment therefore represents a psychological condition of the interaction between humans and the environment. Therefore, it can be considered an emotional construct. Therefore, it can be concluded that visitors' perception of the quality of the tourist destination's environment will affect their level of commitment (Su et al., 2019: 473).

➤ **Environmentally friendly destination reputation**

The thoughts, viewpoints, information, and attitudes of different stakeholders, such as visitors, management, and the local community, are often combined to create a destination's reputation. (Zhao & Weng, 2024:4). The term "destination reputation" describes how much travelers trust and like a place based on an evaluation of their prior attitudes, beliefs, and actions toward the location.(Zhang et al., 2022:5). Eco-friendly destination reputation refers to: "a comprehensive assessment of how 'good' or 'bad' a destination is in terms of the environment, encompassing tourists' estimates, judgments, evaluations, and opinions regarding the destination's environmental activities." It also refers to tourists' perceptions that the destination management effectively implements environmental protection and conservation practices (Bhatti & Alnasser, 2023:162). Cognitive appraisal theory states that "an individual's subjective evaluations will elicit emotional responses" Additionally, environmental commitment symbolizes the sentimental connection

between visitors and the environment of the place. Thus, it may be concluded that a reputation for being ecologically conscious can increase tourists' dedication to acting in an environmentally conscious manner. (Su et al., 2019:473).

➤ **Environmental Commitment**

Generally speaking, commitment describes the emotions and ideas that drive the actions required to sustain and uphold partnerships. (He et al., 2018: 94). In the tourism sector, visitors typically place a high value on connecting with the environment by visiting scenic spots. This means that people who feel more responsible for the environment are more likely to take proactive steps to protect the environment (Bhatti & Alnasser, 2023: 162). Environmental commitment is described as an individual's commitment to protecting the environment, taking into account their relationship with it. Environmental commitment also expresses an individual's emotional attachment to the surrounding environment, a psychological attachment with a long-term environmental orientation (Xie & Wang, 2024: 4). When visitors understand how their actions impact the environment and follow the rules of an ecotourism destination, they behave responsibly. In other words, a sense of responsibility toward the environment, verbal commitment, attitudes, ways of working, and awareness of environmental issues are all associated with environmentally responsible behavior. (Chiu et al., 2013: 4).

➤ **Environmentally Responsible Behaviors**

Environmentally responsible behavior refers to "a set of behaviors that tourists engage in to reduce negative environmental impacts and promote environmental protection in tourism activities." (Yin et al, 2020: 3). Visitors' ecologically responsible activities necessitate careful consideration, since visitors are pivotal stakeholders capable of significantly influencing a destination's environment. (He et al., 2018: 95). These behaviors include the following: using environmentally friendly fuel, avoiding activities that could damage the destination's environment or ecosystem, maintaining the natural environment and keeping the area clean, respecting the local population's culture, environment, or way of life and not disturbing them . (Bhatti & Alnasser, 2023:161).

Individual acts that benefit the environment, frequently involving the sacrifice of personal interests, are also considered to be part of environmentally responsible conduct. Everyday activities must incorporate environmentally conscious behavior, which is characterized as tourism practices that minimize environmental effect and actively safeguard the environment without endangering the ecology and biosphere of tourist destinations. (Zhao & Weng, 2024:4).

3. Research Methods and Materials

3.1 Model development and hypotheses

The current study identified three research hypotheses, based on a review of previous literature, indicating that the level of perception of environmental quality and the environmentally friendly reputation of Imam Hassan City by visitors can enhance the degree of environmental commitment and that the relationship between these practices, in turn, leads to stimulating environmentally responsible visitor behavior. Figure (1) represents the hypothetical model adopted by the current study:

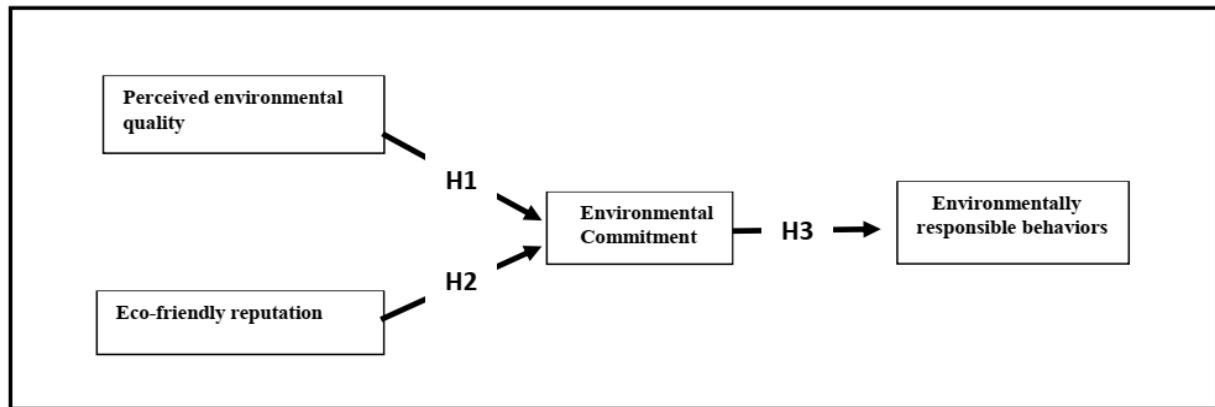


Figure (1) Hypothetical model for the research

The following research hypotheses are put out in light of literature reviews:

Hypothesis 1 (H1). The perceived environmental quality has a positive and meaningful impact on the Environmental commitment of visitors to the city of Imam Hassan.

Hypothesis 2 (H2). The Eco-friendly reputation has a positive and meaningful impact on the Environmental commitment of visitors to the city of Imam Hassan.

Hypothesis 3 (H3). The Environmental commitment has a positive and meaningful impact on the Environmentally responsible behaviors of visitors to the city of Imam Hassan.

3.2. Measurement

The study adopted the establishment of the scale from previous studies to measure the hypothetical model of the study: Table .1 shows the measures used.

Table 1. Measurement of variables

Variables	Item	Source
Perceived environment quality (PEQ)	4	Liu et al,2019
Destination eco-friendly reputation (Eco-fR)	3	Bhatti& Alnasser,2023
Environmental Commitment (EC)	4	Bhatti& Alnasser,2023
Tourists'environmentally responsible behaviours (TERBs)	6	Kumar& Lata,2022

Source: According to previous studies

3.3 Participants and Procedure

The study adopted the purposeful sampling method in distributing the questionnaire to the target community of Iraqi visitors to the city of Imam Hassan Between (2024 /11/25) and (2025/1/3); (95) questionnaires valid for statistical analysis were obtained. When analyzing the demographic characteristics of the research participants, it was noted that the number of males was 55 (58%), and the number of females was 40 (42%). As for the age group of the participants, (32%) were aged 20-30, (26%) were aged 31-40, and (42%) were aged 40 and above. When evaluating the marital status of the participants, the number of singles was (45) (47%), and the number of married people was (50) (53%). Regarding the participants' educational backgrounds, 37% had a middle school diploma, 47% a bachelor's degree, and 16% a postgraduate degree.

3.4 Analysis and Results

To analyze the data, three steps were implemented using PLS-SEM analysis, which consists of the following steps:

- Outlines the research data gathered using descriptive statistics.

- Analyzing the measurement model with reliability and validity indicators.
- Evaluating the structural model of the study with path analysis indicators to test the study hypotheses.

A. Descriptive analysis

Table 2 displays the mean and standard deviation of the study variables, which give a summary of the study findings. On the five-point Likert scale, every research variable was higher than the mean of 3.

Table. 2 Descriptive analysis results

Variable	(PEQ)	(Eco-fR)	(EC)	(TERBs)
Mean	4.1578	4.1613	4.366	4.3403
Standard deviation	0.7465	0.6976	0.661	0.658

Source: SmartPLS.4 output

B. Assessment of the Measurement Model

Three criteria of reliability and validity of the constructed constructs were used to evaluate the measurement model, according to Hair et al. (2017):

1. Internal consistency stability composite reliability ≥ 60 , Cronbach alpha 0.70
2. The Index stability of the index, the standard saturation of the index 0.70
3. The Asymptotic validity average contrast extracted (AVE), > 0.50
4. Discriminant Validity Heterotrait-Monotrait ratio test (HTMT) < 0.90 for each variable.

The measurement model was evaluated using Smart-PLS software. Table (3),(4) shows the results, which were consistent with the criteria required criteria.

Table. 3. Measurement Model

Items	Loading	Cronbach's alpha	Composite reliability	(AVE)
PEO1	0.902	0.886	0.929	0.748
PEO2	0.688			
PEO3	0.952			
PEO4	0.894			
Eco-fR1	0.887	0.784	0.801	0.698
Eco-fR2	0.768			
Eco-fR3	0.847			
EC1	0.953	0.882	0.886	0.743
EC2	0.860			
EC3	0.879			
EC4	0.742			
TERBs1	0.967	0.955	0.963	0.819
TERBs2	0.866			
TERBs3	0.961			
TERBs4	0.877			
TERBs5	0.913			
TERBs6	0.840			

Source: SmartPLS.4 output

Table 4. Discriminant Validity—HTMT

Latent Variable	EC	Eco-fR	PEO	TERBs
Environmental Commitment				
Destination eco-friendly reputation	0.739			
Perceived environment quality	0.520	0.554		
Tourists'environmentally responsible behaviours	0.605	0.463	0.333	

Source: SmartPLS.4 output

C. Assessment of the Structural Model

The structural model analysis begins with studying the value of the variation factor (VIF), the R-square for the predictive significance of the current study model and path coefficient (hypothesis testing), Tables 5 -6 shows the results (see figure 2).

➤ Collinearity Assessment

The problem of multicollinearity arises when two or more variables are not independent of each other. Since multicollinearity is a potential problem in the structural model, the problem of multicollinearity must be tested according to the variance inflation factor (VIF). According to (Hair et al., 2014), a VIF value of (5) or higher indicates the possibility of multicollinearity in the structural model. The results of Table 5 show that the VIF values for all variables are all within the acceptable limits of less than 5, indicating that there is no close correlation between any of the elements of this study.

Table. 5 Results of collinearity assessment.

Variables	VIF
Eco-friendly reputation -> Environmental Commitment	1.308
Environmental Commitment -> Tourists'environmentally responsible behaviours	1.000
Perceived environment quality -> Environmental Commitment	1.308

Source: SmartPLS.4 output

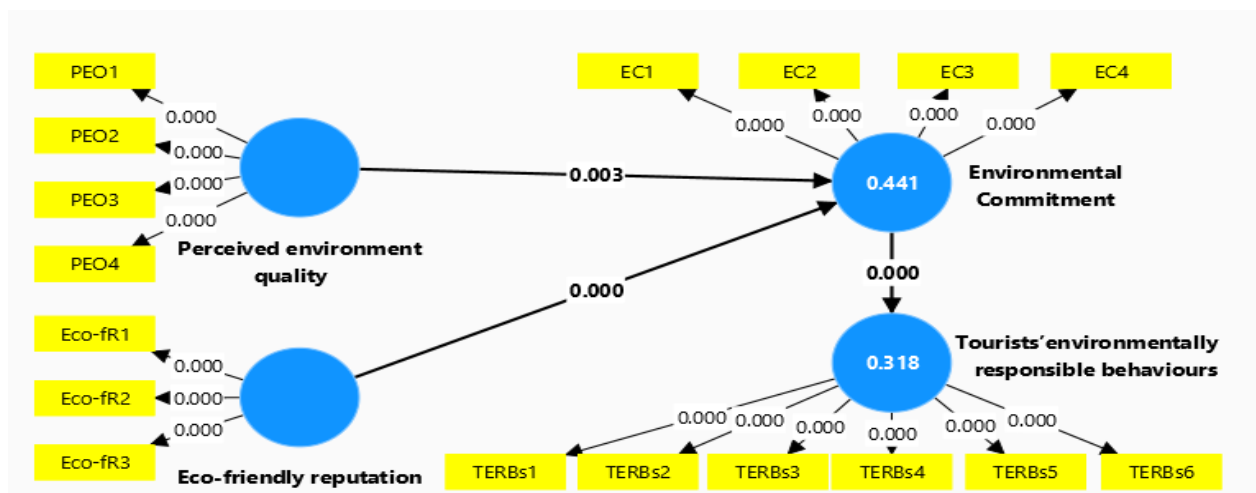


Figure 2. Structural equation model (SEM)

Source: SmartPLS.4 output

In the structural model, represents the percentage of variance of the study model structure. According to (Hair et al., 2017), this value ranges between (0 and 1).

An elevated (R^2) coefficient indicates that the PLS path model is capable of accurately forecasting the values of the variables. Ideally, (R^2) values should be 0.26, 0.13, or 0.02, correspondingly, to

be described as high, medium, or weak in the behavioral sciences (Giao et al., 2020, & Cohen, 1988). According to the results of the statistical analysis in Figure (2), the value of (R^2) for the variable of environmental commitment of the tourist was (0.441), and the value of (R^2) for the variable of environmentally responsible behaviors was (0.318). These are high values, indicating the quality of the PLS model in predicting the current study.

➤ Test hypothesis

The study's hypotheses are tested according to the values of the t-statistics (>1.96), β -value, and p-value. β indicates the strength and direction of the relationship, while the t-value represents the relationship's significance. The t-value should remain >1.96 and the p-value at a 5% significance level ($\alpha = 0.05$) (Hair et al., 2017). (See Table 6).

Table 6. Path coefficient and hypothesis test

Path	H	β -coefficient	STDEV	t - Value	P-values	Rustle
Perceived environment quality -> Environmental Commitment	H1	0.247	0.084	2.936	0.003	Accepted
Eco-friendly reputation -> Environmental Commitment	H2	0.508	0.086	5.936	0.000	Accepted
Environmental Commitment -> Tourists' environmentally responsible behaviours	H3	0.564	0.079	7.168	0.000	Accepted

Source: SmartPLS.4 output

From the results of Figure (2) and Table (4), the path analysis was presented, which was consistent with the criteria approved by (Hair et al ,2017). All the hypotheses of the study are accepted.

Hypotheses: H1 and H2 describe the positive influence of the perceived environmental quality and the Eco-friendly reputation on the Environmental commitment of visitors to the city of Imam Hassan.

Hypothesis (H3) describes the positive impact of environmental commitment towards environmentally responsible behavior of visitors to Imam Hassan City.

Discussion

The statistical analysis results showed that the coefficient of determination , (R^2) for the environmental commitment variable was 0.441, which explains the variance in the environmental commitment structure, which can be essentially explained by the variance in perceived environmental quality and the reputation of the environmentally friendly destination. As for the environmentally responsible visitor behavior variable, the coefficient of determination , (R^2) was 0.318, which can be essentially explained by the variance in the environmental commitment variable by (32%), while the remaining percentage (68%) is explained by other variables not addressed in the current study.

The results of the current study's hypothesis testing also showed that perceived environmental quality has a positive and significant relationship with environmental commitment, with an impact factor of approximately 25%. These results are consistent with the results of research conducted by Su et al. (2019: 471).

At the same time, the research results show that the reputation of an eco-friendly destination has a positive and significant relationship with environmental commitment, with an impact factor of approximately 51%, which is also consistent with the results of research conducted by Su et al. (2019: 471). The research results also show that environmental commitment has a positive and

significant relationship with environmentally responsible visitor behavior, with an impact factor of 56%, which is also consistent with the results of research by (He et al,2018: 95, Su et al,2019: 471, and Bhatti & Alnasser ,2023: 161). Therefore, it can be said that part of the overall impact of the perceived environmental quality and environmentally friendly reputation of Imam Hassan City on the environmentally responsible behaviors of visitors to Imam Hassan City lies in the environmental commitment variable with an impact coefficient ($\beta = 0.56$).

5. Conclusion and recommendations

The current study attempts to investigate how perceived environmental quality and environmentally friendly reputation affect environmentally responsible behaviors in an embedded model of environmental commitment of visitors to Imam Hassan City. All of the suggested hypotheses are acceptable, according to the statistical analysis's findings; both perceived environmental quality and environmentally friendly reputation increase the degree of environmental commitment of visitors to Imam Hassan City. Moreover, the environmental commitment of visitors to Imam Hassan City contributes positively to motivating environmentally responsible behaviors of visitors. The following suggestions may be derived from the study's findings, which can offer insightful information to Imam Hassan City's management:

- The importance of enhancing community awareness and commitment to sustainable tourism by implementing integrated tourism activities with environmental awareness and education initiatives to encourage environmental behavior among visitors.
- Enhancing tour guide activities and maintaining physical aspects are only two examples of how destination management may create and deliver value while concentrating on the concrete and intangible advantages provided to tourists.
- Improving the destination's reputation and putting in place ecologically friendly policies and procedures should be top priorities for destination management.
- Implementing hygiene measures, such as hygiene protocols, proper waste management, and providing signage outlining guidelines for maintaining cleanliness and preventing harmful practices.
- Intensifying public relations and marketing campaigns to manage the environmentally friendly reputation of Imam Hassan City, such as environmentally friendly public practices and activities, and an internal training program for employees on crisis management.

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