



Anatolia

An International Journal of Tourism and Hospitality Research



ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/rana20

Can eco-friendly hotels affect customer willingness to pay more?

Nihan Özkan, Mehmet Sarıışık & Şevki Ulema

To cite this article: Nihan Özkan, Mehmet Sarıışık & Şevki Ulema (01 Dec 2023): Can eco-friendly hotels affect customer willingness to pay more?, Anatolia, DOI: [10.1080/13032917.2023.2289039](https://doi.org/10.1080/13032917.2023.2289039)

To link to this article: <https://doi.org/10.1080/13032917.2023.2289039>



Published online: 01 Dec 2023.



[Submit your article to this journal](#)



Article views: 108



[View related articles](#)



[View Crossmark data](#)



Can eco-friendly hotels affect customer willingness to pay more?

Nihan Özkan ^a, Mehmet Sarıışık ^b and Şevki Ulema ^b

^aGraduate Education Institute, Department of Tourism Management, Sakarya University of Applied Sciences, Sakarya, Türkiye; ^bFaculty of Tourism, Gastronomy and Culinary Arts, Sakarya University of Applied Sciences, Sakarya, Türkiye

ABSTRACT

The aim of this study was to determine the impact of customers' environmental concerns and perceptions of ecofriendly hotels on their willingness to pay more for these hotels. According to the study's findings, environmental concerns and the perception of environmentally friendly hotels have a positive effect on the willingness to pay more for these hotels. Businesses that aim to implement a hotel service approach with high environmental awareness should conduct studies to be able to understand the sensitivity to environmental concerns as indicated from this study. The significance of the ecofriendly hotel concept has been highlighted from the results of this study, and it has become clear that there should be more research to support tourist lodging at these businesses.

ARTICLE HISTORY

Received 23 March 2023
Accepted 25 November 2023

KEYWORDS

Environmental concern; environmentally friendly hotels; green hotels; customer willingness; green purchase intention

Introduction

Natural disasters experienced worldwide, such as forest fires and floods, especially within the past 10 years, have undoubtedly heightened the environmental awareness and protective behaviours of public authorities and citizens. A survey conducted between 2014 and 2019 comprising 189, 996 participants from 20 countries has revealed that the vast majority of people worldwide have expressed a growing concern over escalating environmental problems. According to the study, 71% of people concurred on the damage inflicted on the planet, and this figure increased to 77% in 2019 (Lampert et al., 2019).

Some people try to be more mindful of the environment in their daily lives and have been inclined to choose more environmentally friendly products that have become the centre of attention. Tourism enterprises have also embarked on efforts to implement green practices to create a competitive advantage. Indeed, the tourism industry affects environmental quality resulting from providing food, accommodations, shopping, and transportation (Ansari & Villanthenkodath, 2022); therefore, embracing environmentally friendly attitudes and products becomes crucial in developing sustainable tourism (Burhanudin & Unnithan, 2022). The awareness of consumers regarding environmental issues will encourage suppliers to choose ecofriendly hotels and perhaps be willing to pay more for them than for other similar businesses. In addition, studies have shown that people are willing to pay more for their hotel preferences based on the facility's environmental approach (Choi et al., 2009; Dodds et al., 2010).

Han and Chan (2013) have found that visitors associate green-friendly hotels with lower comfort levels and higher prices. In another study, it was found that green initiatives have a positive effect on the trust of the guests (Balaji et al., 2019) and that this trust is positively related to the customer's

intention to recommend ecofriendly hotels to others (Wang et al., 2018). It also positively influences their intention to revisit (Gupta et al., 2023) that facility. Hotels that implement environmentally friendly activities are especially effective on the loyalty of tourists who have high environmental awareness (Yusof et al., 2016).

Süklüm (2018) has revealed that environmental practices initially bring high costs to the business; however, these costs are reduced in the long run. That is, reducing water and energy use, recycling, managing resources efficiently, and involving customers in these practices contribute to higher revenues for the hotel (López-Gamero et al., 2023).

Studies are limited on the perceptions and attitudes of tourists towards environmental concerns and who are aware that they are also responsible for creating a livable environment and ensuring its sustainability. The objective of the present study was to examine the association between the economic tradeoffs that environmentally conscious tourists are willing to undertake and their preferences for ecofriendly hotels. First, the conceptual framework of the study was created. The analyses included in the study enabled us to understand the impact of participants' environmental concerns and perceptions of ecofriendly hotels on their willingness to pay more for these green hotels. The present study aimed to answer the following general questions in consideration of the importance of the subject:

- (a) What is the impact of the customer's environmental concern on their willingness to pay more for ecofriendly hotels?
- (b) What is the effect of the customer's perception of ecofriendly hotels on their willingness to pay more for these hotels?

In previous studies, the willingness to pay more for green hotels has been examined using various factors. The present study is one of the few that examined the impact of environmental concerns and the perception of ecofriendly hotels on the willingness among consumers in Türkiye to pay more for these hotels within a single framework. Considering the findings of this study, it is believed that the study would provide a systematic perspective for better conceptualization and operationalization of the subject, which would contribute to the improved understanding and functionalization of the topic.

Literature review

The Green Hotels Association has defined the concept of a green hotel as an environmentally friendly business with the intention to initiate programmes that save money, water, and energy while reducing solid waste to help protect the environment (Lee et al., 2010). According to another definition, ecofriendly, or green hotels, are businesses that show their commitment to sustainability by implementing ecological practices, such as water and energy conservation (Gao & Mattila, 2014). Terms also used for these hotels are "ecolodge", "ecotel", "ecohotel", "green hotel", "green resort", "ecoresort", "green room", and "green suite" and represent environmental awareness at a high level (Kahraman & Türkay, 2017).

Ecofriendly products are items that reduce pollution, waste generation, and energy costs and that promote the use of clean and healthy food and have features for recycling waste. Tourists can encounter environmentally friendly products in various ways before and after purchasing at the hotels. Green hotels commonly implement water conservation, energy conservation, and solid waste reduction as prevalent measures by which to enhance their environmental sustainability (Ogbeide, 2012). Some of these hotels are attempting to adopt different sustainable practices, such as wastewater heat pump systems (Zhang et al., 2023), rainwater harvesting, water recycling, solar and wind energy, energy-efficient lighting (Dani et al., 2021), green supply chain management strategy (Migdadi, 2022), smart energy metres, refillable shampoo dispensers in rooms, key card

systems to regulate energy consumption, towel and linen reuse policies, and recycling bins in the lobbies (Millar & Baloglu, 2011; Adeloje et al., 2022).

Concern for the environment can be briefly considered a positive approach towards its protection. When environmental concerns are considered “green issues”, concern for the environment can be explained as a general emotional response to these issues in the aggregate. Nik Abdul Rashid (2009) have explained that the factor that determines the intent of people to prefer green hotels is that harmony with nature reduces environmental concerns. Today, tourists who follow environmentally friendly practices and are concerned about the severity of ecological degradation generally prefer to stay at green establishments (Han et al., 2010).

Examining the main factors that facilitate and hinder the adoption of environmental strategies in hotels is of great importance because it provides valuable information about the dynamics within the sector. Work overload, limited environmental consciousness among hotel management, inadequate integration of green building design and features, scarcity of green expertise, challenges in management, insufficient physical and financial resources, and insufficient government support have been identified as key barriers that hinder the successful implementation of environmentally friendly strategies (Leonidou et al., 2013; Mak & Chang, 2019; Yusof & Jamaludin, 2014). Economic opportunities, stakeholder pressure, managers’ personal environmental concerns, education, and innovation orientation are driving forces behind the adoption of environmentally friendly policies (Fraj et al., 2015; Park & Kim, 2014).

The support of the top management team in a hotel business is of great importance for sustainable environmental performance (Haldorai et al., 2022). Human resource management plays a pivotal role in fostering an organization’s robust environmental knowledge by cultivating employees’ ecological awareness and concerns (Umrani et al., 2020); therefore, the top hotel management team should provide routine training for staff to improve their emphasis on environmental impacts (Okumus et al., 2019).

The hospitality companies, regardless of size and scale, are also feeling increasing pressure to adopt ecofriendly programmes (Ouyang et al., 2019). Hotels with higher ratings are more proactive about environmental awareness (Chua & Han, 2022). Hotels that are part of a hotel chain adopt green practices more than independent hotels because they benefit from economies of scale (Rahman et al., 2012). Some independent hotels are still far from adopting a long-term environmental approach (Robin et al., 2017). One-star hotel managers show reluctance towards energy conservation in their hotels; whereas, two- to five-star hotels show a higher willingness to engage in energy-saving practices (Ali et al., 2008). In addition, hotel location has a positive influence on the decision to develop sustainable practices (Maté-Sánchez-Val & Teruel-Gutierrez, 2021).

Because of differences between developed and developing countries, environmental awareness among hotel businesses can vary. Many developing countries face more environmental problems related to food, water, energy, waste management, and basic infrastructure deficiencies than developed countries (Organisation for Economic Co-operation and Development [OECD], 2013). In addition, many hotels in developing countries lack knowledge about environmental conservation (Robin et al., 2017). In developing countries, environmental concerns significantly influence the attitude of top management, but costs hinder the implementation of green hotel practices (Verma & Chandra, 2018). Furthermore, hotel businesses in developing countries are often influenced more strongly than those in other regions by the demands of European customers (Robin et al., 2017).

Increasing consumer awareness of environmental issues has caused many hotel businesses to accelerate the development of green practices and improve their image in response to their guests’ environmental concerns (Moise et al., 2021; Nair & Pratt, 2022). Research has also shown that green hotels are profitable businesses and own a large share of the market (Menguc & Ozanne, 2005). These findings encourage the top managers of hotel businesses to turn more towards ecofriendly products within their organizations. Environmental concern includes a consumer’s emotional evaluation of environmental problems and is generally more likely to be positively associated with environmentally friendly consumption (Qiao & Dowell, 2022).

Previous studies have revealed that hotel visitors pay more to protect the environment (Dodds et al., 2010; Sert, 2019; Yıldız & Kılıç, 2016) by as much as 5–20% on average (Manaktola & Jauhari, 2007). Citizens of countries with high environmental pollution are especially willing to make more financial sacrifices to protect the environment (Inglehart, 1995). As the ecofriendly movement becomes mainstream, it is noteworthy that top managers of hotel companies realize the potential purchasing power of the green market and are willing to appeal to this market (Sangpikul & Sivapitak, 2023; Zhao, 2011). Conversely, businesses acknowledge the fact that consumers may not consistently prioritize traditional product attributes, such as comfort, usability, price, and quality, when evaluating green marketing initiatives (Ginsberg & Bloom, 2004).

In contrast, some studies in the literature have revealed that tourists are reluctant to pay more for green-concept hotels (Baker et al., 2014; Ogbeide, 2012). These findings have shown that guests have a moderate opinion on green hotels, provided that they do not compromise on comfort and as long as there is no price increase at these hotels (Lemy et al., 2019).

It has been determined by some studies in the literature that environmental concern is reflected in the behaviours of many consumers. For example, Tilikidou (2007) has found that consumers with significant environmental concerns are often pro-environmental buyers. In addition, Grant and Berry (2011) have shown that consumers with environmental concerns have high green hotel purchasing attitudes and behaviours. Choi et al. (2009), Lee et al. (2010), and Hedlund (2011) have revealed in their research that tourists pay additional fees to hotels to protect the environment. González-Rodríguez et al. (2020) have found a significant correlation between environmental awareness and an inclination to pay a higher price. Based on this literature, the following hypotheses were formed:

H1: Environmental awareness has a positive effect on the willingness to pay more for ecofriendly hotels.

Han (2021) has defined the relationship between what people pay for environmentally friendly hotels and their environmentalist awareness. Certain consumers perceive ecofriendly products as a strategic marketing tool (Yi et al., 2018). Employing strategies such as customer education to augment customers' perceptions of environmentally sustainable practices enhance the costumers' inclination to favour hotels that actively participate in green initiatives (Ham & Han, 2013). According to Ahmad and Thyagaraj (2015), there is a significant relationship between knowledge about the environment and customers' perception of green hotels. Individuals' awareness of environmental values and ecosystem degradation leads to a positive attitude towards choosing green hotels (Patwary et al., 2021).

According to the results of the study by González-Rodríguez et al. (2020), if there is a positive image of good environmental practices at the hotels, the customers will agree to pay more for their services. Yıldız and Kılıç (2016) have found that the perception of ecofriendly hotels significantly affects the behavioural intention of tourists. Baker et al. (2014) have found that comfort concern reduces the intention to choose a green hotel and luxury perception prevents guests from paying more for an environmentally sustainable hotel. According to Lee et al. (2010), customers at a hotel that adopts an environmentally friendly concept may pay high prices and revisit the hotel during future vacations. Based on this, the following hypothesis was formed:

H2: The perception of an ecofriendly hotel has a positive effect on the willingness to pay more for these hotels.

Methodology

Quantitative research methods were used in the present study. A questionnaire was developed as the preferred data-collection method. The first part of the two-part questionnaire comprised questions to determine the demographic characteristics of the participants. The second part comprised statements about environmental concerns, ecofriendly hotel perception, and the willingness to pay more. The perception of an ecofriendly hotel was created using the studies of Lee et al. (2010) and Yıldız and Kılıç (2016). The expressions of the willingness to pay more for these hotels were created using the studies of Zeithaml et al. (1996) and Han et al. (2011). Statements on environmental concerns were created using the studies of Kilbourne and Pickett (2008) and Oğuz and Yılmaz (2019).

The questionnaire, created for research purposes, was prepared using Google Forms and distributed to the participants using a link through social media and email. Participants were selected from individuals who follow the social media accounts of chain hotels and tour companies. The survey form link was distributed to participants through their social media accounts (specifically Facebook and Instagram), and they were asked to complete the survey by following the provided link. In some cases, participants received the survey link via email, which was associated with their social media accounts. Prior to initiating the survey, participants were informed about the study through the survey link, and their participation was based on their consent.

On average, it took participants approximately 5 minutes to complete the surveys. In order to safeguard data reliability and mitigate the occurrence of multiple responses, a constraint was imposed to confine each Google Forms session to a singular response. The data were collected in January and February 2022. The target population of the research comprised participants who had received service in any accommodation business for at least 1 night within the last 1 year. A brief explanation about the general purpose of the survey and instructions for completing it was provided at the beginning of the questionnaire.

The convenience sampling method was used for data collection, and every participant who answered the questions was included in the study analysis (Coşkun et al., 2015). Considering both the cost and time elements, it was preferred to take a sample that could represent the population. The number of people to be included in the study was based on the following factors that determined a valid sample: 100 = weak, 200 = moderate, 300 = good, 500 = very good, and 1000 = excellent (Comrey & Lee, 1992; Tabachnick & Fidell, 2015). Using this basis, 421 samples suitable for providing data were chosen within the scope of the research. A five-point Likert scale (1 = strongly disagree; and 5 = strongly agree) was used to determine whether environmental concerns and ecofriendly hotel perceptions encouraged costumers to pay more at the ecofriendly hotels. SPSS ver. 22 (IBM Corp., Armonk, NY, U.S.A.) was used to evaluate the data.

Results

A factor analysis was conducted to determine the construct validity of the scales used in the present study. Kaiser-Meyer-Olkin (KMO) and Bartlett's sphericity tests were conducted to determine whether the data were suitable for factor analysis. The Kaiser – Meyer–Olkin (KMO) sample fit value was 0.856. The Bartlett's test results ($p < 0.05$; $p: 0.000$) were also found to be significant. KMO values varied between 1 and 0, but the minimum value for good analysis was 0.50 (Kalaycı, 2018; Sharma, 1996). The higher the ratio, the more suitable it is for factor analysis. As a result of the analysis, it was observed that the factor load value of 15 items was ≥ 0.50 (Table 1). Considering that the load values of the scale expressions should be > 0.32 , it can be said that the factor loads were at an acceptable level (Tabachnick & Fidell, 2015).

In the present study, a correlation analysis was conducted to determine the relationships between dependent and independent variables using Pearson's correlation coefficient. The analysis results are presented in Table 2. The correlation coefficient between 0.70 and 1.00 is high and between 0.70

Table 1. Results of factor analysis.

Factors	Factor Loading	λ	Eigenvalues	Total Variance Explained (%)	Cronbach's Alpha
FACTOR 1: Environmental Concern		4.59	5.553	37.022	0.837
I think global warming has become a big cause.	0.712	4.62			
I think many types of pollution are getting to harmful levels.	0.755	4.71			
I think that some species of living things are under threat of extinction.	0.710	4.72			
I think that in the future, achieving clean water resources will become a problem.	0.739	4.69			
I think that the shortage in some important resources will occur soon.	0.679	4.34			
I think that the use of pesticides negatively affects the environment.	0.664	4.60			
I am very concerned about the environment.	0.704	4.46			
FACTOR 2: Perception of Ecofriendly Hotels		4.00	2.619	17.463	0.869
Ecofriendly hotels have a positive image and reputation.	0.583	4.37			
Ecofriendly hotels offer high-quality service.	0.799	3.83			
Restaurants in an ecofriendly hotel offer fresh and healthful food.	0.845	3.86			
Staying in an ecofriendly hotel is clean and comfortable.	0.841	4.04			
Staying in an ecofriendly hotel is safe.	0.789	3.89			
FACTOR 3: Willingness to Pay More		3.34	1.453	9.684	0.926
I am willing to pay the additional money for a green hotel.	0.860	3.41			
Extra payment may be made for a hotel that complies with green hotel regulations	0.901	3.45			
I can pay extra for a green hotel	0.900	3.16			

NOTE: Principal Component Analysis; Kaiser-Meyer-Olkin Sampling Adequacy: 0.856; Bartlett's Test of Sphericity: $p > 0.000$; Total Variance Explained: 64.169.

Table 2. Correlation analysis.

		(1)	(2)	(3)
(1) Environmental Concern	Pearson's correlation	1		
	Sig. (2-tailed)			
(2) Perception of Ecofriendly Hotel	Pearson correlation	0.333**	1	
	Sig. (2-tailed)	.000		
(3) Willingness to Pay More	Pearson correlation	0.264**	0.503**	1
	Sig. (2-tailed)	.000	.000	

** Correlation is significant at 0.01. * $N = 421$.

and 0.30 is moderate. If the coefficient is between 0.30 and 0.00, there is a low relationship level (Büyüköztürk, 2019). It was determined that the relationships between the variables ($p < 0.001$) were significant. The results of the correlation analysis found that the independent variables that had the greatest impact on a premium payment for an environmentally friendly hotel were perception and environmental concern towards the environmentally friendly hotels.

The findings from the regression analysis conducted to examine the hypotheses are presented here. Regression analysis was conducted to investigate the effect on environmental awareness and environmentally friendly hotel perception variables in the model. The results are shown in Table 3. In the multiple linear regression analysis, willingness to pay more is the dependent variable, while environmental concern and a perception of ecofriendly hotels are the independent variables. The amount of explanation (R^2) shows how much of the change in the dependent variable is explained by the independent variables.

Environmental concerns and the perception of ecofriendly hotels explained 26.4% of the willingness to pay more ($R^2 = 0.264$). One of the assumptions of regression analysis is that the error terms are not related (autocorrelation) to each other. The Durbin Watson test value, which is generally between 1.5 and 2.5, shows that there is no autocorrelation (Kalaycı, 2018). According to the model, a one-unit increase in environmental concern is expected to cause an increase of 0.267 in

Table 3. Results of multiple regression analysis.

Independent Variable	B	Standard Error	β	<i>t</i>	<i>p</i>	Tolerance	VIF
Environmental concern	0.267	0.109	0.109	2.451	0.015*	0.889	1.125
Perception of ecofriendly hotel	0.754	0.072	0.467	10.487	0.000*	0.889	1.125
<i>F</i>			20.468				
<i>R</i>			0.513				
<i>R</i> ²			0.264				
Adjusted <i>R</i> ²			0.260				
Durbin Watson			1.804				

*The value is significant at 0.01. Dependent variable: willingness to pay more.

the willingness to pay more, and a one-unit increase in the practices of ecofriendly hotel perception is expected to create an increase of 0.754 in the willingness to pay more.

According to the findings, customers of hotels with environmentally friendly practices are willing to pay significant amounts of money. According to the standardized beta coefficients, values of hotel perception ($\beta = 0.467$) and environmental concern ($\beta = 0.109$) were found to be statistically significant in the model with the willingness to pay more for ecofriendly hotels; therefore, the findings support both H1 and H2.

Discussion

The findings of the present study demonstrate that people's interest in hotel concepts that prioritize environmentally conscious services can be enhanced. Elevating this awareness necessitates not only the responsibility of hotel management but also the adoption of strategies aligned with the Theory of Planned Behavior (Ajzen, 1985). According to Environmentally Friendly Hotel Managers, a company's commitment to environmental awareness significantly influences consumers' attitudes and purchasing behaviours (Demir et al., 2021). Within this context, customers are inclined towards businesses that place a strong emphasis on sustainable tourism initiatives; consequently, accommodation establishments can cultivate a positive image, gain a competitive edge, and boost profitability through their environmentally friendly practices. In the study conducted by Chen and Lin (2022), environmentally friendly customers were defined as individuals who demonstrate awareness of protecting nature at every stage of their purchasing behaviour.

Environmentally friendly customers care about concrete environmental practices, such as having environmental certification programmes (e.g. ISO 9000 or ISO 14,001), recycling waste materials, reusing fabric materials, and using local or organic products in restaurants. Businesses are looking for such concrete evidence (Manaktola & Jauhari, 2007).

By integrating the Theory of Planned Behavior with variables like service quality and environmental friendliness, we can analyse the potential for customers to patronize these businesses in the upcoming years. Factors such as service quality variability, businesses' customer-centric attitudes, and perceived behavioural control may play pivotal roles in shaping this intent. Research indicates that people's likelihood to revisit hotel establishments is directly linked to the quality of service they receive.

The Planned Behavior Theory, an extension of the Reasoned Action Theory, accounts for situations in which individuals may not have complete voluntary control over their actions; consequently, the attitudes and approaches adopted by these businesses can influence customers' decisions to pay premium prices. According to the findings of the present study, specific actions must be detailed to encourage people to act on their willingness to pay higher prices for ecofriendly hotels. A structured framework is required to successfully initiate behaviours. People align with the Theory of Planned Behaviour, adhering to a logical pattern in their decision-making process (Pahrudin et al., 2021).

Furthermore, past experiences, mood, stereotypes, social status, demographic characteristics, and education play significant roles in this decision-making process. These past experiences are

transformed into judgements, guided by an individual's ability to control their behaviour through the activation of behavioural belief mechanisms. The decisions on what to purchase are shaped by abstract influences, such as subjective values and perceived behavioural controls; therefore, the transition from an intention to purchase to action is influenced by behavioural controls. In essence, if the perception of an environmentally friendly hotel falls within the realm of behavioural control, customers are more willing to pay a premium to that hotel. This study exemplifies a planned behaviour model, highlighting the direct relationship between environmental awareness and the perception of ecofriendly hotels, both independent variables, and the willingness to pay more.

Nonetheless, for a comprehensive examination of the willingness to pay a higher price for an environmentally conscious hotel and the factors influencing the decision to revisit such establishments, psychologically informed models should be developed before the decision-making stage. Future studies can be conducted within this framework to delve deeper into these considerations.

Conclusion and implications

The increasing concern of tourists over environmental issues makes ecofriendly products a strategic tool by which hotels can increase their competitive advantage. Customers with environmental concerns demonstrate their willingness to bear the additional costs associated with environmentally friendly products. According to the findings, it has been determined that the dimension of environmental awareness and the perception of environmentally friendly hotels have positive effects on the willingness to pay more for green products in hotels.

For decades, air pollution caused by petroleum fuels, exposure of seas to plastic wastes, and destruction of natural areas because of increasing construction has polluted the environment (Çelik & Çevirgen, 2021). In general, the first reaction of people to this issue is to avoid the problem regions. Many sectors have announced precautionary plans to prevent environmental pollution. The automotive sector produces electric motors to reduce fossil fuel usage, and factories come to the market with green-friendly products. Within this context, the competition to produce environmentally friendly products continues fiercely, and accommodation businesses aim to eliminate people's concerns by designing environmentally friendly hotels and creating healthy living spaces; however, this situation creates additional costs for hotel businesses.

In addition to reducing the water used in a hotel by using a rain accumulation system and low-density flowing taps, waste-recycling systems, a keyless entry method, energy-saving lighting, ecological and non-chemical cleaning agents, reduction of plastic use, and thermal insulation applications increase initial hotel setup costs (Tovmasyan, 2021); however, in the long run, the continuity of sustainable environmental perceptions may create additional costs for hotel guests. For these costs to be recovered from hotel customers, the perception of the theoretical environment should increase in society. This study supports the idea of establishing the perception of a clean environment and increasing the presence of hotel businesses that leave less waste to the environment.

The results obtained from this study support the hypotheses presented. In addition, the perception of green hotels explains the customer's willingness to pay more for green hotels. These results echo those in the related literature (Cometa, 2012; Namkung & Jang, 2014); therefore, an environmental concern leads to a greater willingness to pay more, although high- and middle-income hotel customers are more willing to pay more than low-income customers (Kang et al., 2012). Some tourists from these income groups may believe that green hotels are more expensive; however, even these customers are willing to pay more to protect the environment (Han & Chan, 2013).

It is crucial for hotel managers to understand their guests and their expectations to successfully provide green products and services. Moreover, they can provide customers with insights into the integration and execution of sustainable practices within hotel operations (Chia-Jung & Pei-Chun, 2014). Marketing professionals at ecofriendly hotels should inform their customers about the positive environmental effects of "ecobuying".

These efforts would improve ecological purchasing decisions by directing individuals' daily habits towards green practices (Han et al., 2009). Because customers' green scepticism, environmental awareness, and sense of environmental protection negatively affect their intent on buying green products (Goh & Balaji, 2016), guests who value green products must understand why they incur such high costs (Moser, 2015). As a result, many hotels are following the "greening" trend in an effort to save costs and must closely follow government policies and regulations while attracting environmentally conscious customers (Jiang & Gao, 2019).

The findings of this study have significant implications for hotel businesses, marketing professionals, and policymakers. Through this information, practitioners can assist in developing strategies for the development of green hotels. The consumers' willingness to pay additional costs also provides important implications for the formulation of pricing strategies for hotel businesses; therefore, developing diverse marketing initiatives that emphasize the advantages provided by environmentally friendly accommodations, including a conducive environment, fresh organic food, minimized chemical facilities, non-petrochemical products, and pristine air quality, would constitute a more effective strategic approach.

The study findings suggest that consumers exhibit a propensity for allocating a greater financial investment towards green hotels. Their environmental concerns and perceptions of ecofriendly hotels motivate them to do so; therefore, adopting green practices would benefit hotel businesses. A more detailed presentation of customer requests and expectations could motivate investors in the context of increasing environmentally friendly businesses in the future. The presence of hotel choices that do not align with individuals' daily behaviour has been noted in the relevant literature; however, as environmental awareness increases, it is expected that the inclination towards these hotels will also rise. This situation can lead to the emergence of new businesses within this concept and the adaptation of existing ones to an ecofriendly approach.

This study is one of the few that focuses on the perception of ecofriendly hotels. The findings from this study are expected to make a significant contribution to the existing literature on ecofriendly hotels; however, the study had several limitations. First, a specific target was not set for demographic differences. Future studies can address demographic differences by comparing different countries or regions. Second, the economic levels of countries should also be compared; however, it is important to increase environmental awareness by conducting these and similar studies during the process of addressing the escalating frequency of environmental events caused by global warming.

The present study has determined that the independent variables that have the greatest effect on paying more for an environmentally friendly hotel are perception and environmental anxiety towards those hotels. Environmental concern has a positive effect on the willingness to pay more for green-friendly hotels (H1). The basis of this willingness is that the natural balance may be disturbed by global warming and environmental concerns are high. As a result of the study, the perception of ecofriendly hotels has a positive effect on the willingness to pay more for green-friendly hotels (H2).

It may be necessary to employ neuromarketing tools to uncover customers' willingness to pay more for hotels that emphasize ecotourism. By minimizing the number of service products designed for hotel rooms and reducing waste generation, pricing can be determined based on individuals' emotional responses. Neuromarketing tools, such as questionnaires, electroencephalography, and eye movement tracking devices, can be used with customers' consent to measure their emotions and calculate purchase intentions. Future studies can focus on other tourism businesses with an ecofriendly concept.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

Nihan Özkan is a PhD candidate at the Department of Tourism Management, Sakarya University of Applied Sciences, Türkiye. Her research interests focus on the tourism experience and tourism economics.

Mehmet Saruşık is a Professor in the School of Tourism Faculty, Sakarya University of Applied Sciences, Türkiye. His research interests include Gastronomy, tourism management, and sustainable tourism.

Şevki Ulema is a Professor in the School of Tourism, Sakarya University of Applied Sciences, Türkiye. His research interests are Gastronomy, tourism marketing, and ecotourism.

ORCID

Nihan Özkan  <http://orcid.org/0000-0002-9574-7961>

Mehmet Saruşık  <http://orcid.org/0000-0002-0681-6137>

Şevki Ulema  <http://orcid.org/0000-0002-5874-8797>

References

- Adeloye, D., Makurumidze, K., & Sarfo, C. (2022). User-generated videos and tourists' intention to visit. *Anatolia*, 33(4), 658–671. <https://doi.org/10.1080/13032917.2021.1986082>
- Ahmad, A., & Thyagaraj, K. S. (2015). Consumer's intention to purchase green brands: The roles of environmental concern, environmental knowledge and self expressive benefits. *Current World Environment*, 10(3), 879–889. <https://doi.org/10.12944/CWE.10.3.18>
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl, & J. Backmann (Eds.), *Action control: From cognition to behavior* (pp. 11–39). Springer publishing. http://dx.doi.org/10.1007/978-3-642-69746-3_2
- Ali, Y., Mustafa, M., Al-Mashaqbah, S., Mashal, K., & Mohsen, M. (2008). Potential of energy savings in the hotel sector in Jordan. *Energy Conversion and Management*, 49(11), 3391–3397. <https://doi.org/10.1016/j.enconman.2007.09.036>
- Ansari, M. A., & Villanthenkodath, M. A. (2022). Does tourism development promote ecological footprint? A nonlinear ARDL approach. *Anatolia*, 33(4), 614–626. <https://doi.org/10.1080/13032917.2021.1985542>
- Baker, M. A., Davis, E. A., & Weaver, P. A. (2014). Eco-friendly attitudes, barriers to participation, and differences in behavior at green hotels. *Cornell Hospitality Quarterly*, 55(1), 89–99. <https://doi.org/10.1177/1938965513504483>
- Balaji, M. S., Jiang, Y., & Jha, S. (2019). Green hotel adoption: A personal choice or social pressure? *International Journal of Contemporary Hospitality Management*, 31(8), 3287–3305. <https://doi.org/10.1108/IJCHM-09-2018-0742>
- Burhanudin, B., & Unnithan, A. B. (2022). The determinants of eco-friendly tourist behaviour: Perspectives from Indian and Indonesian tourists travelling abroad. *Anatolia*, 33(1), 48–64. <https://doi.org/10.1080/13032917.2021.1905014>
- Büyükköztürk, Ş. (2019). *Data analysis handbook for social sciences*. Pegem Academy publishing.
- Çelik, M. N., & Çevirgen, A. (2021). The role of accommodation enterprises in the development of sustainable tourism. *Journal of Tourism and Services*, 23(12), 181–198. <https://doi.org/10.29036/jots.v12i23.264>
- Chen, Q. W., & Lin, J. (2022). Impact of environmental concern on ecological purchasing behavior: The moderating effect of prosociality. *Sustainability*, 14(5), 3004. <https://doi.org/10.3390/su14053004>
- Chia-Jung, C., & Pei-Chun, C. (2014). Preferences and willingness to pay for green hotel attributes in tourist choice behavior: The case of Taiwan. *Journal of Travel & Tourism Marketing*, 31(8), 937–957. <https://doi.org/10.1080/10548408.2014.895479>
- Choi, G., Parsa, H. G., Sigala, M., & Putrevu, S. (2009). Consumers' environmental concerns and behaviours in the lodging industry: A comparison between Greece and the United States. *Journal of Quality Assurance in Hospitality & Tourism*, 10(2), 93–112. <https://doi.org/10.1080/15280080902946335>
- Chua, B. L., & Han, H. (2022). Green hotels: The state of green hotel research and future prospects. *Journal of Travel & Tourism Marketing*, 39(5), 465–483. <https://doi.org/10.1080/10548408.2022.2136329>
- Cometa, L. (2012). *Consumer beliefs about green hotels* [Unpublished master's thesis]. Kent State University College and Graduate School of Education.
- Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis*. Psychology Press.
- Coşkun, R., Altunışık, R., Bayraktaroğlu, S., & Yıldırım, E. (2015). *Sosyal Bilimlerde Araştırma Yöntemleri - SPSS Uygulamalı [SPSS Applied Research Methods in Social Sciences]*. Sakarya Publishing.
- Dani, R., Tiwari, K., & Negi, P. (2021). Ecological approach towards sustainability in hotel industry. *Materials Today: Proceedings*, 46, 10439–10442. <https://doi.org/10.1016/j.matpr.2020.12.1020>

- Demir, M., Rjoub, H., & Yesiltas, M. (2021). Environmental awareness and guests' intention to visit green hotels: The mediation role of consumption values. *PloS One* 6, 16(5), e0248815. <https://doi.org/10.1371/journal.pone.0248815>
- Dodds, R., Graci, S. R., & Holmes, M. (2010). Does the tourist care? A comparison of tourists in Koh Phi Phi, Thailand and Gili Trawangan. *Indonesia Journal of Sustainable Tourism*, 18(2), 207–222. <https://doi.org/10.1080/09669580903215162>
- Fraj, E., Matute, J., & Melero, I. (2015). Environmental strategies and organizational competitiveness in the hotel industry: The role of learning and innovation as determinants of environmental success. *Tourism Management*, 46, 30–42. <https://doi.org/10.1016/j.tourman.2014.05.009>
- Gao, Y. L., & Mattila, A. R. (2014). Improving consumer satisfaction in green hotels: The roles of perceived warmth, perceived competence, and CSR motive. *International Journal of Hospitality Management*, 42, 20–31. <https://doi.org/10.1016/j.ijhm.2014.06.003>
- Ginsberg, J. M., & Bloom, P. N. (2004). Choosing the right green marketing strategy. *MIT Sloan Management Review*, 46(1), 79–84.
- Goh, S. K., & Balaji, M. S. (2016). Linking green skepticism to green purchase behavior. *Journal of Cleaner Production*, 131, 629–638. <https://doi.org/10.1016/j.jclepro.2016.04.122>
- González-Rodríguez, M. R., Díaz-Fernández, M. C., & Font, X. (2020). Factors influencing willingness of customers of environmentally friendly hotels to pay a price premium. *International Journal of Contemporary Hospitality Management*, 32(1), 60–80. <https://doi.org/10.1108/IJCHM-02-2019-0147>
- Grant, A. M., & Berry, J. W. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking and creativity. *Academy of Management Journal*, 54(1), 73–96. <https://doi.org/10.5465/amj.2011.59215085>
- Gupta, V., Sharma, S., & Sinha, S. K. (2023). How sustainable practices influence guests' willingness to pay a price premium in Fiji. *Worldwide Hospitality & Tourism Themes*, 15(3), 269–278. <https://doi.org/10.1108/WHATT-01-2023-0008>
- Haldorai, K., Kim, W. G., & Garcia, R. F. (2022). Top management green commitment and green intellectual capital as enablers of hotel environmental performance: The mediating role of green human resource management. *Tourism Management*, 88, 104431. <https://doi.org/10.1016/j.tourman.2021.104431>
- Ham, S., & Han, H. (2013). Role of perceived fit with hotels' green practices in the formation of customer loyalty: Impact of environmental concerns. *Asia Pacific Journal of Tourism Research*, 18(7), 731–748. <https://doi.org/10.1080/10941665.2012.695291>
- Han, H. (2021). Consumer behavior and environmental sustainability in tourism and hospitality: A review of theories, concepts, and latest research. *Journal of Sustainable Tourism*, 29(7), 1021–1042. <https://doi.org/10.1080/09669582.2021.1903019>
- Han, X., & Chan, K. (2013). Perception of green hotels among tourists in Hong Kong: An exploratory study. *Services Marketing Quarterly*, 34(4), 339–352. <https://doi.org/10.1080/15332969.2013.827069>
- Han, H., Hsu, L. T. J., & Lee, J. S. (2009). Empirical investigation of the roles of attitudes toward green behaviors, overall image, gender, and age in hotel customers' eco-friendly decision-making process. *International Journal of Hospitality Management*, 28(4), 519–528. <https://doi.org/10.1016/j.ijhm.2009.02.004>
- Han, H., Hsu, L. T. J., Lee, J. S., & Sheu, C. (2011). Are lodging customers ready to go green? An examination of attitudes, demographics, and eco-friendly intentions. *International Journal of Hospitality Management*, 30(2), 345–355. <https://doi.org/10.1016/j.ijhm.2010.07.008>
- Han, H., Hsu, L., & Sheu, C. (2010). Application of the theory of planned behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, 31(3), 325–334. <https://doi.org/10.1016/j.tourman.2009.03.013>
- Hedlund, T. (2011). The impact of values, environmental concern, and willingness to accept economic sacrifices to protect the environment on tourists' intentions to buy ecologically sustainable tourism alternatives. *Tourism and Hospitality Research*, 11(4), 278–288. <https://doi.org/10.1177/1467358411423330>
- Inglehart, R. (1995). Public support for environmental protection: Objective problems and subjective values in 43 societies. *Political Science and Politics*, 28(1), 57–72. <https://doi.org/10.2307/420583>
- Jiang, Y., & Gao, Y. (2019). Factors that influence potential green hotel customers' decision-making process—evidence from China. *Journal of China Tourism Research*, 15(4), 455–477. <https://doi.org/10.1080/19388160.2018.1558139>
- Kahraman, N., & Türkay, O. (2017). *Tourism ve çevre [Tourism and environment]*. Detay publishing.
- Kalaycı, Ş. (2018). *SPSS Uygulamalı Çok Değişkenli İstatistik Teknikleri [SPSS Applied Multivariate Statistics Techniques]*. Asil publishing.
- Kang, K. H., Stein, L., Heo, C. Y., & Lee, S. (2012). Consumers' willingness to pay for green initiatives of the hotel industry. *International Journal of Hospitality Management*, 31(2), 564–572. <https://doi.org/10.1016/j.ijhm.2011.08.001>
- Kilbourne, W., & Pickett, G. (2008). How materialism affects environmental beliefs, concern, and environmentally responsible behavior. *Journal of Business Research*, 61(9), 885–893. <https://doi.org/10.1016/j.jbusres.2007.09.016>
- Lampert, M., Metaal, S., Liu, S., & Gambarin, L. (2019). *Global rise in environmental concern*. Glocalities publishing.

- Lee, J. S., Hsu, L. T., Han, H., & Kim, Y. (2010). Understanding how consumers view green hotels: How a hotel's green image can influence behavioural intentions. *Journal of Sustainable Tourism*, 18(7), 901–914. <https://doi.org/10.1080/09669581003777747>
- Lemy, D. M., Brian, R., & Pah, J. G. (2019). How guest perceived green hotel practice. A study of Indonesia. *Journal of Environmental Management & Tourism*, 10(8), 1767–1778. [https://doi.org/10.14505/jemt.v10.8\(40\).07](https://doi.org/10.14505/jemt.v10.8(40).07)
- Leonidou, L. C., Leonidou, C. N., Fotiadis, T. A., & Zeriti, A. (2013). Resources and capabilities as drivers of hotel environmental marketing strategy: Implications for competitive advantage and performance. *Tourism Management*, 35, 94–110. <https://doi.org/10.1016/j.tourman.2012.06.003>
- López-Gamero, M. D., Molina-Azorín, J. F., Tari, J. J., & Pertusa-Ortega, E. M. (2023). Interaction between sustainability practices and the mediating role of hotel performance. *Journal of Sustainable Tourism*, 1–26. <https://doi.org/10.1080/09669582.2023.2198165>
- Mak, A. H., & Chang, R. C. (2019). The driving and restraining forces for environmental strategy adoption in the hotel industry: A force field analysis approach. *Tourism Management*, 73, 48–60. <https://doi.org/10.1016/j.tourman.2019.01.012>
- Manaktola, K., & Jauhari, V. (2007). Exploring consumer attitude and behaviour towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*, 19(5), 364–377. <https://doi.org/10.1108/09596110710757534>
- Maté-Sánchez-Val, M., & Teruel-Gutierrez, R. (2021). Evaluating the effects of hotel location on the adoption of green management strategies and hotel performance. *Journal of Sustainable Tourism*, 30(8), 2029–2052. <https://doi.org/10.1080/09669582.2021.1995397>
- Menguc, B., & Ozanne, L. K. (2005). Challenges of the 'green imperative': A natural resource-based approach to the environmental orientation – business performance relationship. *Journal of Business Research*, 58(4), 430–438. <https://doi.org/10.1016/j.jbusres.2003.09.002>
- Migdadi, Y. K. A. A. (2022). Identifying the best practices in hotel green supply chain management strategy: A global study. *Journal of Quality Assurance in Hospitality & Tourism*, 24(4), 1–41. <https://doi.org/10.1080/1528008X.2022.2065657>
- Millar, M., & Baloglu, S. (2011). Hotel guests' preferences for green guest room attributes. *Cornell Hospitality Quarterly*, 52(3), 302–311. <https://doi.org/10.1177/1938965511409031>
- Moise, M. S., Gil-Saura, I., & Ruiz Molina, M. E. (2021). The importance of green practices for hotel guests: Does gender matter? *Economic Research-Ekonomska Istraživanja*, 34(1), 1–22. <https://doi.org/10.1080/1331677X.2021.1875863>
- Moser, A. K. (2015). Thinking green, buying green? Drivers of pro-environmental purchasing behavior. *Journal of Consumer Marketing*, 32(3), 167–175. <https://doi.org/10.1108/JCM-10-2014-1179>
- Nair, J. C., & Pratt, S. (2022). The impact of risk perceptions on tourists' revisit intention: The case of COVID-19 and Fiji. *Anatolia*, 1–16. <https://doi.org/10.1080/13032917.2022.2160776>
- Namkung, Y., & Jang, S. S. (2014). Are consumers willing to pay more for green practices at restaurants? *Journal of Hospitality & Tourism Research*, 41(3), 329–356. <https://doi.org/10.1177/1096348014525632>
- Nik Abdul Rashid, N. R. (2009). Awareness of eco-label in Malaysia's green marketing initiative. *International Journal of Business & Management*, 4(8), 32–41. <https://doi.org/10.5539/ijbm.v4n8p132>
- OECD. (2013). *Putting green growth at the heart of development*. OECD Publishing.
- Ogbeide, G. C. (2012). Perception of green hotels in the 21st century. *Journal of Tourism Insights*, 3(1), 1. <https://doi.org/10.9707/2328-0824.1032>
- Oğuz, Y. E., & Yılmaz, V. (2019). Turizm öğrencilerinin turizm sektörüne yönelik algılarının sektörde kalma niyetlerine etkisi: Esogü turizm fakültesi örneği [The impact of environmental consciousness on the selection of green star hotel: Case of ESOGU tourism faculty students]. *Eskisehir Osmangazi Üniversitesi İİBF Dergisi*, 14(1), 51–65. <https://doi.org/10.17153/oguiibf.411968>
- Okumus, F., Köseoglu, M. A., Chan, E., Hon, A., & Avci, U. (2019). How do hotel employees' environmental attitudes and intentions to implement green practices relate to their ecological behavior? *Journal of Hospitality & Tourism Management*, 39, 193–200. <https://doi.org/10.1016/j.jhtm.2019.04.008>
- Ouyang, Z., Wei, W., & Chi, C. G. (2019). Environment management in the hotel industry: Does institutional environment matter? *International Journal of Hospitality Management*, 77, 353–364. <https://doi.org/10.1016/j.ijhm.2018.07.015>
- Pahrudin, P., Chen, C. T., & Liu, L. A. (2021). Modified theory of planned behavioral: A case of tourist intention to visit a destination post pandemic Covid-19 in Indonesia. *Heliyon*, 7(10), e08230. <https://doi.org/10.1016/j.heliyon.2021.e08230>
- Park, J., & Kim, H. J. (2014). Environmental proactivity of hotel operations: Antecedents and the moderating effect of ownership type. *International Journal of Hospitality Management*, 37, 1–10. <https://doi.org/10.1016/j.ijhm.2013.09.011>
- Patwary, A. K., Omar, H., & Tahir, S. (2021). The impact of perceived environmental responsibility on tourists' intention to visit green hotel: The mediating role of attitude. *Geojournal of Tourism and Geosites*, 34(1), 9–13. <https://doi.org/10.30892/gtg.34101-612>

- Qiao, K., & Dowell, G. (2022). Environmental concerns, income inequality, and purchase of environmentally-friendly products: A longitudinal study of US counties (2010-2017). *Research Policy*, 51(4), 104443. <https://doi.org/10.1016/j.respol.2021.104443>
- Rahman, I., Reynolds, D., & Svaren, S. (2012). How “green” are North American hotels? An exploration of low-cost adoption practices. *International Journal of Hospitality Management*, 31(3), 720–727. <https://doi.org/10.1016/j.ijhm.2011.09.008>
- Robin, C. F., Pedroche, M. S. C., & Astorga, P. S. (2017). Revisiting green practices in the hotel industry: A comparison between mature and emerging destinations. *Journal of Cleaner Production*, 140, 1415–1428. <https://doi.org/10.1016/j.jclepro.2016.10.010>
- Sangpikul, A., & Sivapitak, S. (2023). Understanding consumers’ green hotel selection: A reflection from Thailand. *Anatolia*, 1–6. <https://doi.org/10.1080/13032917.2023.2254315>
- Sert, A. N. (2019). Çevre bilinci ve algılanan yeşil otel uygulamalarının yeşil otellerde kalma niyeti ve fazla ödeme niyeti üzerindeki etkisi [The effect of environmental awareness and perceived green hotel practices on intention to stay in green hotels and intention to pay more]. *Hitit Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 12(1), 205–222. <https://doi.org/10.17218/hititsosbil.538015>
- Sharma, S. (1996). *Applied multivariate techniques*. Wiley publishing.
- Süklüm, N. (2018). Yeşil otellerin maliyetler açısından değerlendirilmesi [evaluation of green hotels in terms of costs]. *Hitit Sosyal Bilimler Dergisi*, 11(1), 375–394. <https://doi.org/10.17218/hititsosbil.397266>
- Tabachnick, B. G., & Fidell, L. S. (2015). *Using multivariate statistics*. Pearson publishing.
- Tilikidou, I. (2007). The effects of knowledge and attitudes upon Greeks’ pro-environmental purchasing behaviour. *Corporate Social Responsibility and Environmental Management*, 14(3), 121–134. <https://doi.org/10.1002/csr.123>
- Tovmasyan, G. (2021). Capital investments, tourist tax and tourism development: The case study of Armenia. *Economics & Sociology*, 14(1), 199–213. <https://doi.org/10.14254/2071-789X.2021/14-1/13>
- Umrani, W. A., Channa, N. A., Yousaf, A., Ahmed, U., Pahi, M. H., & Ramayah, T. (2020). Greening the workforce to achieve environmental performance in hotel industry: A serial mediation model. *Journal of Hospitality & Tourism Management*, 44, 50–60. <https://doi.org/10.1016/j.jhtm.2020.05.007>
- Verma, V. K., & Chandra, B. (2018). Intention to implement green hotel practices: Evidence from Indian hotel industry. *International Journal of Management Practice*, 11(1), 24–41. <https://doi.org/10.1504/IJMP.2018.088380>
- Wang, S., Wang, J., Wang, Y., Yan, J., & Li, J. (2018). Environmental knowledge and consumers’ intentions to visit green hotels: The mediating role of consumption values. *Journal of Travel & Tourism Marketing*, 35(9), 1261–1271. <https://doi.org/10.1080/10548408.2018.1490234>
- Yıldız, S. B., & Kılıç, S. N. (2016). Effect of German tourists’ environmental consciousness and environmentally friendly hotel (green hotel) perception on behavioral intentions. *The Journal of International Social Research*, 9 (43), 2614–2623. <https://doi.org/10.17719/jisr.20164317821>
- Yi, S., Li, X., & Jai, T. M. (2018). Hotel guests’ perception of best green practices: A content analysis of online reviews. *Tourism and Hospitality Research*, 18(2), 191–202. <https://doi.org/10.1177/1467358416637251>
- Yusof, Z. B., & Jamaludin, M. (2014). Barriers of Malaysian green hotels and resorts. *Procedia-Social and Behavioral Sciences*, 153, 501–509. <https://doi.org/10.1016/j.sbspro.2014.10.083>
- Yusof, N., Rahman, S., & Iranmanesh, M. (2016). The environmental practice of resorts and tourist loyalty: The role of environmental knowledge, concern, and behavior. *Anatolia: An International Journal of Tourism & Hospitality Research*, 27(2), 214–226. <https://doi.org/10.1080/13032917.2015.1090463>
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60(2), 31–46. <https://doi.org/10.1177/002224299606000203>
- Zhang, D., Fang, C., Gao, Z., Wang, X., Shen, C., & Li, H. (2023). Energy, environmental and economic assessment of wastewater heat recovery systems in hotel buildings. *Applied Thermal Engineering*, 222, 119949. <https://doi.org/10.1016/j.applthermaleng.2022.119949>
- Zhao, C. (2011). *An analysis of hotels’ green activities and its influence on hotels’ projected image using a mixed methodology* [Unpublished doctoral dissertation]. Purdue University.