

The following publication 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 and Tourism Management*, 39, 193-200 is available at <https://doi.org/10.1016/j.jhtm.2019.04.008>.

HOW DO HOTEL EMPLOYEES' ENVIRONMENTAL ATTITUDES AND INTENTIONS TO IMPLEMENT GREEN PRACTICES RELATE TO THEIR ECOLOGICAL BEHAVIOR?

Abstract

This study aims to investigate how intent to implement green practices of hotel companies influence their employees' ecological behavior influenced by attitudes toward ecological behavior – environmental knowledge, environmental awareness, and environmental concern. To this end, data were collected via survey from 497 hotel employees in Turkey. The findings of the study suggest that there are significant relationships between attitude toward ecological behavior and ecological behavior of hotel employees. Study results suggest that that intention to implement green practices, which raising from work environment has a small moderate effect on ecological behavior of employees. This is an important indicator to understand how companies lead ecological behavior of employees. As one of the first studies in the field, this study provides specific theoretical and practical implications within limitations and future potential studies.

Key words: ecological behavior; environmental knowledge, environmental awareness, and environmental concern, hotels, employees, Turkey

1. INTRODUCTION

This study investigates how intent to implement green practices of companies influence their employees' ecological behavior. In recent years businesses have used green practices to gain sustainable competitive advantage since green practices have played critical role on gaining reputation and meeting customer demands and expectations (Lozano, 2015). Hence, scholars have focused on effects of green practices on financial performance (Dowell & Muthulingam, 2017; Endrikat, Guenther, & Hoppe, 2014; Miroshnychenko, Barontini, & Testa, 2017; Qi et al., 2014), corporate strategies (Berchicci, Dowell, & King, 2012; Branzei, Ursacki-Bryant, Vertinsky, & Zhang, 2004; Buysse & Verbeke, 2003), environmental innovation (Berrone, Fosfuri, Gelabert, & Gomez-Mejia, 2013; Hsiao & Chuang, 2016; Rezai, Sumin, Mohamed, Shamsudin, & Sharifuddin, 2016), customers (Androulidakis, Levashenko, & Zaitseva, 2016; Atzori, Shapoval, & Murphy, 2016; Lee, Jai, & Li, 2016; Yi, Li, & Jai, 2016), and employees (Chan, Hon, Chan, & Okumus, 2014; Chan, Hon, Okumus, & Chan, 2017). However, there is a dearth of research on how companies impact their employees' ecological behavior, which are actions to preserve and/or conserve environment voluntarily (Axelrod & Lehman, 1993).

Previous studies related to ecologic behavior have delved into customers' ecological behavior (Kim, Njite, & Hancer, 2013; Shin, Im, Jung, & Severt, 2017; Tapia-Fonllem, Corral-Verdugo, Fraijo-Sing, & Durón-Ramos, 2013). A few studies were conducted on employees' ecological behavior (Chan et al., 2014; Chan et al., 2017; Tapia-Fonllem et al., 2013). These studies mainly looked at what are the antecedents of ecological behavior at the employee level. However, these studies have not addressed how companies lead to employees' ecological behaviors in their life. Hence, this current study aims to investigate the following issues:

- Identify relationship between attitude toward behavior and ecological behavior.

- Explore how intention arising from work environment influence the relationship between attitude toward behavior and ecological behavior
- Identify what are the role of demographic characteristics of employees and companies in the relationships.

The study is structured as follows. The first section is a review of the literature on ecological behavior and studies on ecological behavior in hospitality industry. The second section, methodology, explains how the data were prepared and analyzed. In the next section, we discuss the results. Finally, an inclusive evaluation of the results, limitations, and suggestions for future research is presented.

2. LITERATURE REVIEW

2.1. Ecological behavior

Ecological behavior is defined as “actions which contribute towards environmental preservation and/or conservation” (Axelrod & Lehman, 1993, p. 153). However, there are discussions on what the antecedents of an individual ecological behavior are, and how we measure them (Arnold, Kibbe, Hartig, & Kaiser, 2017; Axelrod & Lehman, 1993; Kaiser, 1998). For example, Axelrod and Lehman (1993) suggested three factors influencing attitudinal factors, efficacy factors, and outcome desires to measure ecological behavior. Kaiser (1998) used to the theory of planned behavior to explain determines of ecological behavior emerged from behavior intention including two factor – attitude toward behavior and subjective norms. Kaiser and Wilson (2004) developed a general ecological behavior scale including energy conservation, mobility and transportation, waste avoidance, recycling, and Vicarious, social behaviors toward ecological behavior. In recent year, studies Chan et al. (2014) and Chan et al. (2017) considered three factors named as three triggers influencing ecological behavior. These three factors are environmental knowledge, environmental awareness, and environmental concern. Based on these

studies we proposed the following model (see Figure 1) illustrating relationships among the factors and intention arising from work environment.

Insert Figure 1 about here

In this model, we assume that attitude toward behavior appears by three triggers environmental knowledge, environmental awareness, and environmental concern. Then, there is a relationship between attitude and ecological behavior as shown in (Kaiser, 1998). We suggest that employees' intentions to implement green practices related to work environment affect employees' ecological behavior. Ecological knowledge is considered as "one's ability to understand and evaluate the impact of society on the ecosystem" (Haron, Paim, & Yahaya, 2005, p. 427). We addressed environmental awareness as "knowing of the impact of human behavior on the environment" (Kollmuss & Agyeman, 2002, p. 253). Last, environmental concern is elaborated as "evaluation of, or an attitude towards facts, one's own behavior, or others' behavior with consequences for the environment" (Fransson & Gärling, 1999, p. 370).

2.2. Overview of studies related to hotel employees and green practices

As noted above, studies related to green practices have usually focused on customers in the hospitality industry (Shin et al., 2017). There are still limited studies addressing relationship between employees' behaviors and green practices of hotels. For example, Chan et al. (2014) identified environmental knowledge, environmental awareness and environmental concern and employees' ecological behavior on their intentions to implement green practices in hotel companies in Hong Kong. They found that there is a positive relationship among them. In the another study Chan et al. (2017) looked at relationships among three triggers and employee ecological behavior to implement green practices in the international tourist hotels in Hong Kong. They found that there is a significant positive relationship among these factors.

2.3. Individual attitudes and intention to implement green practices on ecological behavior

However, these studies do not consider how intention to implement green practices in hotels impact the employees' ecological behavior as seen Figure 1. Here, intention to implement green practices refers to the willingness/intention of the company to use energy saving or environmental friendly materials with an objective is to protect the environment. However, existing literature largely focuses on employees' environmental attitudes without considering company's intention to implement green practices at the same time. This is an issue because we believe that employees' attitudes (environmental knowledge, concern, and awareness) should be consistent with firms' goal, that is, intentional to implement green practices, so that the employees' ecological behavior will increase. Either taking employees' attitude but ignore firms' intention, or considering firms' intention but ignore employees' attitude is not able to understand employees' ecological behavior. Hence, this study tests this gap by focusing on employees' attitude and firms' intention to implement green practices in hotels located in a developing country, Turkey.

To explain the above relationships regarding the three attitudes among employees on green management, first, we propose that employees' ecological behavior will increase when their understanding and knowledge on green environment is high and the company is willing to implement green practices in the environment. Second, employees' ecological behavior will be high when they are concerned about the green environment and the company's intention to implement green practices is high. Third, when employees in the organization aware that environmental protection is important and this awareness is consistent with an organization's intention to implement green practices, their ecological behavior will be high. They will try every avenue to use energy saving elements, protect the environment, as well as being an environmental friendly person. Therefore, company's intention to promote green environment will integrate with the three employees' environmental attitudes, which will finally influence their ecological action to make green in the company.

3. METHODOLOGY

3.1. Measures

A self-administered questionnaire was used to measure the proposed research framework (Fig. 1). The questionnaire included two sections. While first section was related to the factors, second section was related to demographics of hotels and respondents. The questions included in the first section were developed from previous literature. For example, measures of environmental knowledge (five items) adapted from Kaiser, Wölfing, and Fuhrer (1999). The environmental awareness was measured by seven items adapted from Morgil, Arda, Secken, Yavuz, and Ozyalcin Oskay (2004). Measures of the environmental concern of employees (seven items) and intention measures (five items) were developed from Minton and Rose (1997). Last, ecological behavior (seven items) was adapted from Dolnicar and Leisch (2008), Kaiser, Oerke, and Bogner (2007), and Kilbourne and Pickett (2008). In this first section, we use a 5-point Likert scale which ranges from 1= Strongly Disagree to 5= Strongly Agree. The questions included in the second section were related to employees' demographics such as age, gender, education, marital status, work experience, working department, position, and employment status, and hotel demographics –certification for ISO 14001, room number, and hotel classification (See Table 1 and Table 2). The draft questionnaire was first reviewed with several graduate students and academics. Based on the feedback received, further changes were made. Following this, the questionnaire was tested with 25 hotel employees and additional changes and refinements were made with the expressions.

Insert Table 3 to 7 about here

3.1. Data Collection and Analysis

Empirical data was collected from employees of seven 4 and 5-star hotels in Antalya and Bodrum, Mugla Turkey. Hotel managers and human resources managers of these hotels were

approached and hard copy of the questionnaires were dropped to each of the hotel and the following week the completed questionnaires were picked up from each hotel. Hotel managers and human resources managers were selected the participant randomly. In total, 850 questionnaires were sent to the hotel managers and human resource managers and 497 usable responses were obtained, with a response rate of 58%. A summary of respondents and hotels is presented in Tables 1 and 2.

Insert Table 1 & 2 about here

4. RESULTS

We identified relationships among the factors by using principal components analysis with varimax rotation, and mean substitution and indicators (e.g. eigenvalue, scree plot analysis) were inspected for the adequacy of factor compositions (Hair Jr., Black, Babin, Anderson, & Tatham, 2005). Cronbach α was considered to assess internal consistency (Hair et al., 2005). We conducted the factor analysis for all items and Harman's one-factor test conducted to show that mono-method bias is not a concern in this research (Podsakoff & Organ, 1986). Item- and factor-level descriptive statistics are reported below in Tables 3-7.

Table 8 presents the descriptive statistics and bivariate correlations among variables of the ecological behavior. The results suggest that ecological behavior is positively related to components of attitude toward ecological behavior- environmental knowledge, environmental awareness, and environmental concern, and intent to implement green strategies. We also look at the correlation among control variables, dependent and independent variables (predictor variables). No relationships were found between genders, working department, experience in the current hotel, experience in the hospitality industry, and hotel classification and other variables. These control variables were not used in the next analysis. We identified that all predictor variables were statistically associated with ecological behavior. Hence, the data was suitable for

multiple linear regression to be reliably undertaken (Tabachnick & Fidell, 2007). The correlations between the predictor variables and the dependent variable were not strong to moderate strongly, ranging from $r = .479, p < .01$ to $r = .663, p < .01$.

Insert Table 8 about here

In the next step, we conducted hierarchical multiple regression to identify the ability of factors of awareness toward ecological behavior (environmental knowledge, environmental awareness, and environmental concern) and intent to implement green strategies to predict levels of ecological behavior by controlling for demographic characteristics of respondents. We, first, checked the violation of the assumptions of normality, linearity, and homoscedasticity (Tabachnick & Fidell, 2007). Preliminary analyses showed no violation of the assumptions. All correlations were weak to moderate, ranging between $r = .16, p < .01$ and $r = .35, p < .001$. Since Tolerance values were greater than .10 and variance inflation factor (VIF) less than 10, multicollinearity was unlikely to be a problem for the analysis (Tabachnick & Fidell, 2007).

Hierarchical multiple regression analysis was performed in four steps and results are shown in Table 9. In the first step of hierarchical multiple regression, control variables were entered. This step was statistically significant $F(8, 488) = 4.371; p < .001$ and explained 7 % of variance in ecological behavior. These variables made a significant contribution to the model. In the second step, three predictors- environmental knowledge, environmental awareness, and environmental concern were entered. The second step was statistically significant, and the total variance explained by the model as a whole was 44% - $F(11, 485) = 35.144; p < .001$. The introduction of three predictors explained additional 38% of variance in ecological behavior (R^2 change = .38; $F(3, 485) = 109.4; p < .001$). All three factors made a significant unique contribution to the model. After entry of intention to implement green strategies at the third step the total variance explained by the model as a whole was 47% ($F(12, 484) = 35.580$. The entry

of intention factor explained additional 3% of variance in ecological behavior (R^2 change = .3; $F(1, 484) = 22.9$; $p < .001$). The interaction between attitudes toward ecologic behavior and intention was entered in the last step, and to avoid multicollinearity, attitudes toward ecologic behavior and intention were mean centered before creating the interaction term between these variables. The entry of the interaction explained additional 1.2% of variance in ecological behavior (R^2 change = .3; $F(1, 483) = 11.1$; $p < .001$).

In the final model, all predictor variables were statistically significant, made a significant contribution. The best predictor of ecological behavior is Environmental Concern ($\beta = .20$, $p < .001$) followed by Environmental awareness ($\beta = .198$, $p < .001$), intention to implement green practices ($\beta = .191$, $p < .001$), and Environmental knowledge ($\beta = .123$, $p < .01$). In this process, while certified hotel, and employment status as control variables played critical role in step 1, environment management systems and education took over this role in the second step. In the third step education and employment status become statistically significant and made a significant contribution. In the last step, marital status and employment status become statistically significant and made a significant contribution.

Insert Table 9 about here

5. DISCUSSION AND CONCLUSIONS

This study aimed to investigate how intent to implement green practices of hotel companies influence their employees' ecological behavior. To this end, data was collected via survey from employees working for hotels in Antalya, and Bodrum, Turkey. As being one of the first studies in the field, the research findings provide specific theoretical and managerial implications. These are discussed below.

5.1. Theoretical Implications

First, the findings of the study confirm that there are significant relationships between factors of attitude toward ecological behavior and ecological behavior of hotel employees (Chan et al., 2014; Chan et al., 2017). Consistent with the study conducted in Hong Kong (Chan et al., 2014) our study also showed that the best predictor of ecological behavior is environmental concern followed by environmental awareness, and environmental knowledge in Turkish hotel context. Additionally, this study found that intention to implement green practices was one of these predictors of ecological behavior.

Second, our model showed that intention to implement green practices has a small moderate effect on ecological behavior of employees. This is an important indicator to understand how companies lead ecological behavior of employees. In Turkish hotel context hotel firms are not effective on the employees' ecological behavior. This means that hotels use green practices in practice as a marketing strategy without integrating them into their operational processes. Although many of the respondents are aware of environmental practice of hotels the use of this is limited in their lifestyle or ecological behavior. There are three reasons in here: First, hotels may not explain comprehensively what the relationship between the practices and environmental concerns globally and/or locally are since they only focus on green practices as marketing strategies in short term planning. Second, this situation can be risen due to economic, social, and cultural positions of Turkey as a developing country. Turkish hotel companies and people may not have effective long term plan for their future or even they have but they are not able because of problems to handle daily. Last, the hotel companies in Turkey currently face numerous problems and challenges in human resources like a lack of qualified staff, high turnover, and seasonal staff (Avci et al., 2011; Uyar & Bilgin, 2011). As presented above, many of the respondents are seasonal employees. Hence, hotels may not fully focus on organizational commitment practices positively influenced by green practices for seasonal employees.

Finally, we looked at effects of control variables on the model. At the beginning there were relationships between age, marital status, education, position, employment status, hotels characteristics for green practices, and hotel room number and ecological behavior and/or factors of attitude toward ecological behavior, on the model the effects of them lost except employment position and marital status. However, the relationships among them and ecological behavior were negatively significant. Many of the respondents are single and front line employees, and many of them are young people.

5.2. Managerial Implications

This study has specific managerial implications, and suggest a number of ways to improve applications of green practices of hotels into employees' ecological behavior. First, many employees are aware of hotels' green practices. However, they do not consider too much into their ecological behavior. Given this, hotels should offer effective training programs on what the relationship between these practices and daily life green practices. Specific attention can be given to departmental training programs including specialty of departments in green practices. Second, demographic characteristics of employees show relationship with ecological behaviors of employees. Hotels should reevaluate and improve human resource management practices by integration green practices. Moreover, hotels consider green practices mainly as marketing strategies to be more attractive for their customers. However, to be successful they should enrich all organizational process with green practices to enhance employees' ecological behavior on their task in hotel and their life.

Lastly, our study provides suggestions to hotel managers that an organization's intention to implement green practices is critical to signal to the employees that green management is not an environmental policy but also important to all internal and external members that can protect the organizational environment, as well as to the industry as a whole. By understanding this

intentional arises from the work environment, employees will try to follow by learning more knowledge about how to promote green approach, concerning the green management practices, and understanding the importance of this green practices. With this intention and attitudes towards green management, employees' ecological behavior will demonstrate in the workplace. This is a spillover effect transferring from the top management to all levels of the organization, and finally to the customers. Because the behavior of front-line employees will be easily observed by the customers, and this positive effect will make customers believe the company is an environmental friendly institution and positive image may be established. Organizations nowadays have invested a lot of money to promote their positive image such as through advertisement in different social media channels. We suggest that employee ecological behavior can be viewed as a marketing strategy to inform all the guests that the company is concerned about green management. The benefit of this approach may help the firm to save a lot of marketing cost by nurturing employees' ecological behavior.

5.4. Limitations and Future Research

There are several limitations in this current study. First, this study reported findings from a developing country, namely Turkey. Future studies can collect data from hospitality organizations from other emerging and developed countries. Second, we collected data from only hotel employees. Future studies can collect data from restaurants, airports, and event businesses (Shin et al., 2017). Finally, the components of attitude toward are limited in this study. Future studies can look at them more comprehensively and deeper adding new components. Additionally the model can be tested by adding subjective norms influencing behavior intention (Kaiser et al., 1999).

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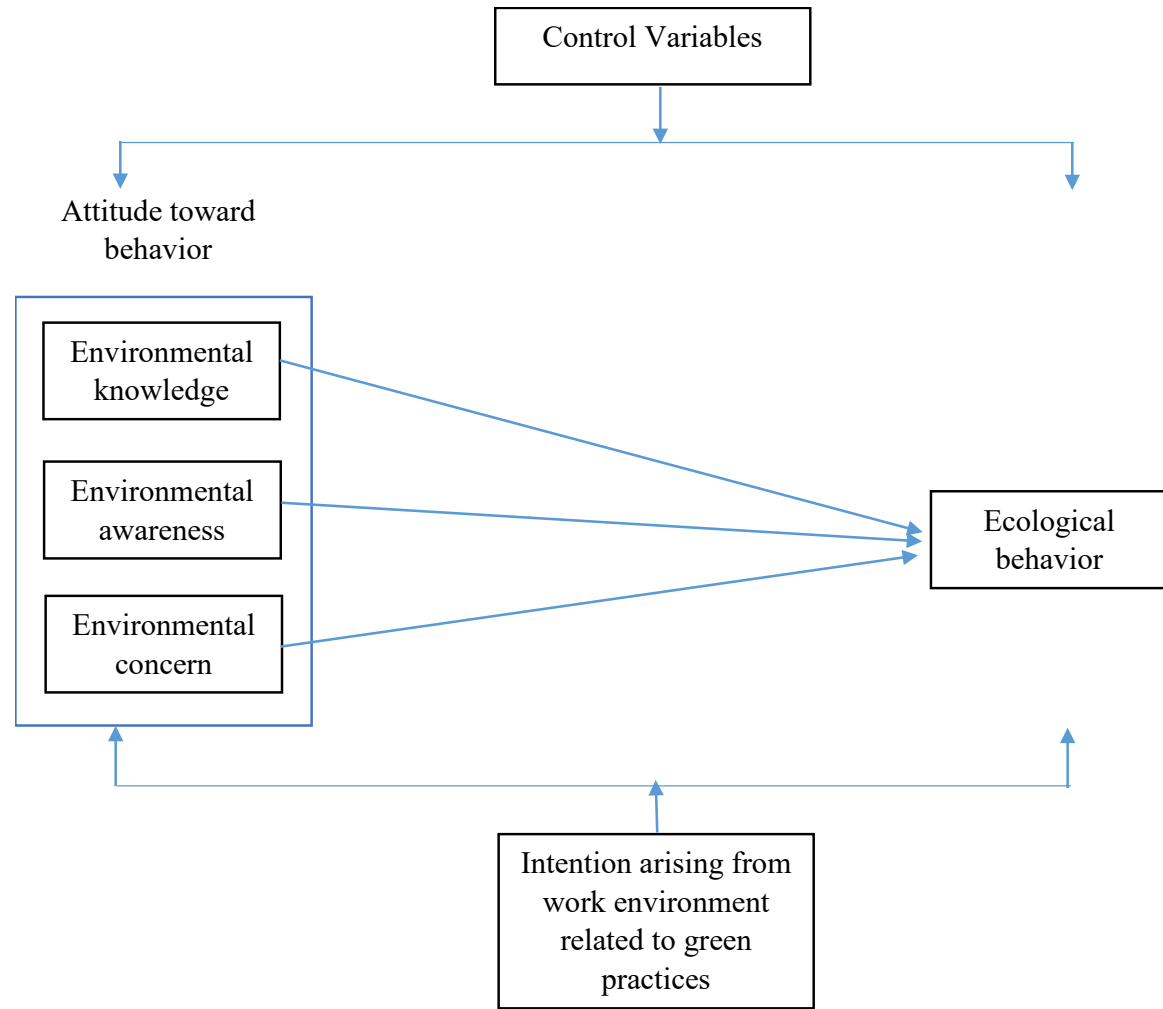


Figure 1. Proposed model

Table 1 Respondent characteristics (n=497)

Characteristics	Frequency	Percentage
Gender		
Male	312	62.8
Female	185	37.2
Age		
18-24	161	32.4
25-34	154	31.0
35-44	109	21.9
45-54	42	8.5
55-64	25	5.0
65 and over	6	1.2
Marital Status		
Single	231	46.5
married with kids	144	29.0
Married without kids	50	10.1
Single parent	30	6.0
Have a partner	19	3.8
Widowed	18	3.6
Other	5	1.0
Education		
Junior School	60	12.1
High School	183	36.8
Some College	76	15.3
Degree	150	30.2
Master or above	18	3.6
Other	10	2.0
Position		
Managerial	24	4.8
Supervisory	57	11.5
Line Employee	392	78.9
Other	24	4.8
Work experience in the hotel industry		
<1 year	114	22.9
5-9 years	106	21.3
1-4 years	144	29.0
10 > years	133	26.8
Work experience with this hotel		
<1 year	264	53.1
5-9 years	116	23.3
1-4 years	62	12.5
10 > years	55	11.1
Working Department		
Front Office	80	16.1
Food and Beverage Service	133	26.8
Kitchen	76	15.3

Housekeeping	64	12.9
Engineering	11	2.2
Recreation	18	3.6
Marketing and Sales	13	2.6
Events	6	1.2
Security	30	6.0
Finance and accounting	15	3.0
Admin	12	2.4
Human Resources	4	.8
Laundry	10	2.0
Others	25	5.0
Position		
Managerial	24	4.8
Supervisory	57	11.5
Line Employee	392	78.9
Other	24	4.8
Employment Status		
Full time	182	36.6
Part time	18	3.6
Seasonal	249	50.1
Intern	43	8.7
Other	5	1

Table 2. Hotels characteristics (n=497)

Characteristics	Frequency	Percentage
Hotel certified with an Environmental Management System Standard (e.g. ISO 14001, ISO 991; EMAS EARTH CHECK, Green Globe etc.)		
Yes	398	80.1
No	12	2.4
Not sure	87	17.5
Hotels having an Environmental Management System/Environmental program(s)		
Yes	370	74.4
No	36	7.2
Not sure	91	18.3
	42	8.5
Number of Rooms		
Below 50	13	2.6
51-99	9	1.8
100-199	80	16.1
200-299	214	43.1
over 300	181	36.4
Hotel classification		
3 Star/Diamond	13	2.6
4 Star/Diamond	33	6.6
5-Star/Diamond	451	90.7

Table 3. Descriptive Statistics and Factoring Results of Environmental Knowledge

	Mean	Standard Deviation	Loading	Eigenvalue	% of variance	Cronbach α
Environmental Knowledge	3.73	0.97	-	2.445	48.901	0.729
1. Melting of the polar ice caps may result in flooding of shores and islands	3.67	1.34	0.75			
2. Fossil fuels (e.g. gas, oil) produce carbon dioxide in the atmosphere when burned	3.85	1.17	0.74			
3. A change in climate caused by increased levels of carbon dioxide in the atmosphere is called the greenhouse effect	3.71	1.15	0.73			
4. A reduced number of species may interrupt the food chain, affecting some subsequent species in the chain	3.80	1.20	0.74			
5. Poisonous metals remain in the human body	3.61	1.31	0.51			

Table 4. Descriptive Statistics and Factoring Results of Environmental Awareness

	Mean	Standard Deviation	Loading	Eigenvalue	% of variance	Cronbach α
Environmental Awareness	3.94	0.16	-	3.024	43.19	0.768
1. The usage of natural gas should increase	3.72	1.32	.459			
2. The products made of recyclable materials should be preferred even though they are more expensive	3.86	1.14	.675			
3. Energy saving light bulbs should be used even though they are expensive	3.95	1.23	.713			
4. Drinks in plastic bottles should not be preferred since they are difficult to recycle	3.85	1.27	.547			
5. Listening to music loudly at home causes noise pollution	3.90	1.17	.586			
6. Individuals should gain awareness about the environment at all levels of education starting from kindergarten	4.13	1.15	.790			
7. Individuals should be informed about the environment through media (TV, newspapers, magazines and others)	4.18	1.14	.763			

Table 5. Descriptive Statistics and Factoring Results of Environmental Concern

	Mean	Standard Deviation	Loading	Eigenvalue	% of variance	Cronbach α
Environmental Concern	3.89	0.23	-	3.208	45.835	0.794
1. I think we are not doing enough to save scarce natural resources from being used up	3.63	1.40	.701			
2. I feel sorry that the government does not do more to control environmental pollution	3.56	1.41	.670			
3. I feel disturbed when I think about the harm being done to plant and animal life by pollution	3.97	1.16	.752			
4. Hotel guests should pay higher prices for products, which pollute the environment	3.82	1.26	.498			
5. Public schools should require all students to take a course concerning environmental conservation	4.17	1.06	.629			
6. I feel disturbed when I think of the ways industries are polluting the environment	4.05	1.10	.730			
7. Hoteliers should be required to use recycled materials in their operations whenever possible	4.06	1.12	.725			

Table 6. Descriptive Statistics and Factoring Results of Intention to implement green strategies

	Mean	Standard Deviation	Loading	Eigenvalue	% of variance	Cronbach α
Intention to implement green strategies	3.93	0.07	-	2.811	56.22	0.804
1. I would be willing to sign a petition to support my hotel company's environmental initiative	4.00	1.17	.727			
2. I would consider joining the hotel green committee	3.86	1.09	.783			
3. I would be willing to do extra works, which are related to environmental protection even though no extra pay will be given	3.85	1.11	.755			
4. I would be willing to follow the hotel instructions to perform the required environmental practices	3.95	1.05	.768			
5. I would be willing to attend any environmental training programs organized by my hotel company	3.99	1.11	.714			

Table 7. Descriptive Statistics and Factoring Results of Ecological Behavior

	Mean	Standard Deviation	Loading	Eigenvalue	% of variance	Cronbach α
Ecological Behavior	3.82	0.22	-	2.75	39.35	0.74
1. I have consulted my superiors about an environmental management issue	3.40	1.37	0.40			
2. As the last person to leave a room, I switch off lights	4.01	1.28	0.15			
3. For short distances (within 10 minutes), I walk	3.98	1.23	0.12			
4. I reuse my shopping bags	4.01	1.12	0.54			
5. I buy products in refillable package	3.73	1.19	0.78			
6. I separate waste	3.80	1.15	0.76			
7. I collect and recycle used paper	3.84	1.24	0.64			

Table 8. Descriptive Statistics and Selected Correlations

Variables	Mean	Standard Deviation	1	2	3	4	Certified Hotel	Environment Management Systems	# of Room	Age	Marital Status	Education	Position	Employment Status
1- Ecological Behavior	3.82	0.22					.067	.009	.028	-.050	-.116**	-.013	-.112*	-.203**
2- Environmental Knowledge	3.73	0.97	.514**				.146**	.104*	.093*	-.135**	-.106*	.087	-.067	-.125**
3- Environmental Awareness	3.94	0.16	.578**	.663**			.120**	.094*	.039	-.086	-.077	.071	-.087	-.138**
4- Environmental Concern	3.89	0.23	.583**	.585**	.657**		.226**	.170**	.090*	-.150**	-.134**	.089*	-.100*	-.181**
5- Intention	3.93	0.07	.541**	.479**	.547**	.618**	.093*	.010	.087	-.077	-.095*	.062	-.121**	-.073

Notes. * p < .05; ** p < .01; *** p < .001

Table 9. Hierarchical Regression Model of Ecological Behavior

Independent Variables	Step 1				Step 2				Step 3				Step 4			
	B	SE	β	t	B	SE	β	t	B	SE	β	t	B	SE	β	t
Control Variables																
Certified Hotel	0.12	0.06	0.11*	1.97	-0.01	0.05	-0.01	-0.12	-0.01	0.05	-0.01	-0.20	.00	.05	.00	.04
Systems	-0.09	0.06	-0.08	-1.45	-0.09	0.05	-0.09*	-1.99	-0.07	0.05	-0.07	-1.53	-0.08	.04	-.07	-1.68
# of Room	0.02	0.04	0.02	0.44	-0.03	0.03	-0.04	-1.04	-0.04	0.03	-0.04	-1.21	-.03	.03	-.03	-.99
Age	-0.03	0.03	-0.05	-0.98	0.02	0.03	0.03	0.85	0.02	0.03	0.03	0.80	.02	.03	.02	.59
Marital Status	-0.06	0.03	-0.10*	-2.06	-0.04	0.02	-0.07	-1.79	-0.04	0.02	-0.06	-1.63	-.04	.02	-0.07*	-1.98
Education	-0.01	0.03	-0.01	-0.29	-0.05	0.02	-0.07*	-2.01	-0.05	0.02	-0.07*	-1.97	-.04	.02	-.06	-1.75
Position	-0.06	0.07	-0.04	-0.86	-0.02	0.06	-0.02	-0.44	0.00	0.05	0.00	0.01	.00	.05	.00	-.07
Employment Status	-0.15	0.04	-0.20***	-4.07	-0.06	0.03	-0.08	-1.93	-0.07	0.03	-0.09*	-2.43	-.07	.03	-0.10**	-2.61
Predictor variables																
Attitude toward Ecological Behavior																
Environmental Knowledge					0.14	0.04	0.16**	3.31	0.12	0.04	0.14**	2.94	.11	.04	0.123**	2.68
Environmental Awareness					0.26	0.05	0.26***	5.14	0.22	0.05	0.22***	4.33	.20	.05	0.201**	4.01
Environmental Concern					0.31	0.05	0.33***	6.75	0.22	0.05	0.23***	4.51	.19	.05	0.198***	3.85
Intention									0.20	0.04	0.21***	4.79	.18	.04	0.191***	4.31
Attitude toward Ecological Behavior*Intention													-.10	.03	-0.13***	-3.33
R	0.26				0.67				0.69				0.69			
R ²	0.07				0.44				0.47				0.481			
R ² change					0.38***				0.03***				0.012***			

Notes. * p < .05; ** p < .01; *** p < .001 SE: Standard Error