

RESPUESTAS DE LOS CONSUMIDORES A LOS HOTELES CERTIFICADOS MEDIOAMBIENTALMENTE: EL EFECTO MODERADOR DE LA CONCIENCIA MEDIOAMBIENTAL SOBRE LA FORMACIÓN DE INTENCIONES COMPORTAMENTALES

Martínez García de Leaniz, Patricia; Herrero Crespo, Ángel; Gómez López, Raquel
Universidad de Cantabria

RESUMEN

Este estudio desarrolla un modelo que explora la relación entre las prácticas verdes, la imagen verde, la conciencia medioambiental y las intenciones comportamentales de los clientes en un contexto hotelero certificado. Para testar empíricamente el modelo propuesto se realizaron 502 encuestas personales a clientes hoteleros en España. Los resultados muestran como las percepciones de los clientes sobre las prácticas verdes tienen un efecto directo y positivo en la imagen verde de las compañías hoteleras. Al mismo tiempo, esta imagen influye directa y positivamente sobre las intenciones de comportamiento de los clientes hacia los hoteles certificados medioambientalmente. También se demuestra que cuanto mayor sea la conciencia medioambiental de los consumidores, mayor será su intención de hospedarse, realizar comentarios positivos y pagar una prima por alojarse en hoteles certificados. Por último, la conciencia medioambiental ejerce un efecto moderador sobre la relación causal entre la imagen verde y las intenciones comportamentales.

Palabras clave:

Hoteles certificados, prácticas verdes, imagen verde, intenciones comportamentales, conciencia medioambiental.

ABSTRACT

This study develops a model that investigates the relationship among green practices, green image, environmental consciousness and the behavioral intentions of customers in a certified hotel context. The study examines the direct and the moderating role of environmental consciousness in the formation of behavioral intentions based on green initiatives. To test the proposed model empirically, 502 personal surveys of hotel customers were conducted in Spain. The findings show that customer perceptions of green practices have a positive direct effect on a hotel's green image. At the same time, this environmental image has positive direct effects on customer behavioral intentions towards certified hotels. The authors also found that the higher the environmental consciousness of consumers, the greater their intention to stay, to spread positive word-of-mouth and pay a premium for environmentally-certified hotels. Finally, consumer environmental consciousness

also exerts a moderating effect on the causal relationship between green image and behavioral intentions.

Keywords:

Certified hotels, hotel green practices, green image, behavioral intentions, environmental consciousness.

1. Introduction

Environmental sustainability is fundamental for tourism competitiveness, especially from a long-term perspective (Hu & Wall, 2005). The hospitality industry faces increasing pressure to operate in a more eco-friendly manner given its negative effect on the natural environment. The industry's impact on the natural environment includes habitat destruction, water and energy over-consumption, and soil, water and air contamination (Bohdanowicz, 2005). Hospitality managers need to admit their environmental responsibility and find effective ways to respond to these demands since perceived deficiencies in environmental management can be damaging to corporate image and profitability. In order to promote environmental management and engage environmentally conscious consumers, more and more hotels are implementing environmental certification programs.

Environmental certifications act as a means to promote the voluntary implementation of sustainability practices in hotels while distinguishing real eco-friendly companies from "green-washed" products and services (Karlsson & Dolnicar, 2016). The benefits of environmental certifications for the tourism and hospitality industry can be numerous, from eliminating environmentally harmful practices, attracting eco-friendly customers to certified hotels and providing hotel guests with accurate information about environmental performance, to cost savings and a better knowledge of job and production systems (Geerts, 2014). Despite all this research, there is insufficient evidence about customer perceptions regarding these schemes and how these certifications might relate to customer behavior when there are consumers segments with different levels of environmental consciousness. For example, although many studies report an increased understanding of environmental issues, confirmed by an increase in consumer engagement in pro-environmental purchasing decisions (Di Pietro et al., 2013; Chan, 2013; Kang et al., 2012; Millar et al., 2012), others maintain that the demand for environmentally-certified hotels is limited, and emphasize that little progress has been made in modifying consumer behavior (Baker et al., 2014; Line & Hanks, 2016). Such inconsistencies indicate a partial understanding of the factors affecting green consumer behavior and emphasize the need for further research in this area. The authors suggest that these mixed findings may be partially ascribable to the mediating and moderating factors that significantly affect customer decision-making processes regarding green products and services.

The authors of this study suggest a comprehensive model including two broad categories leading to pro-environmental behavior: internalized perceptions (e.g. environmental consciousness) and the external perceptions of the firm (e.g. perceptions of green practices and green image). As such, the present paper attempts to explore the conditions under which customer perceptions about green practices lead to favorable behavioral intentions toward certified hotels by considering the mediating effect of green image and the direct and moderating effects of environmental consciousness. Existing studies in environmental psychology and consumer behavior have shown that green image and environmental consciousness are fundamental concepts in explaining green consumer behavior (Huang et al., 2014; Jeong et al., 2014; Kim, 2015; Lee et al., 2010; Martínez, 2015; Namkung & Jang, 2013), however, previous research has had an inclination to investigate these variables separately. It is therefore clear that hospitality theory and practice must include these essential factors as central

constructs in order to explain the behavioral intentions of customers regarding green accommodation products and services to promote sustainable tourism and develop effective green marketing strategies in a hotel context.

2. Background

2.1. Green practices and green image in certified hotels

Companies show their environmental responsibility by making a green commitment in order to adopt ecological initiatives voluntarily (Castro et al., 2016). One of the main expressions of this green commitment is environmental certification programs. Within the accommodation context, the implementation of environmental certifications by hotel companies is considered as an essential prerequisite to attract and retain an increasing market segment of pro-environmental customers who have a preference for, and are willing to purchase, sustainable and green accommodation products (Chen & Tung, 2010). Environmental certifications are considered to improve environmental performance by helping firms to focus on environmental management and also enhance internal supervision of environmental performance (Darnall & Sides, 2008). These schemes also benefit consumers by providing a guarantee of quality and reliability (Esparon et al., 2014).

Before explaining the notion of companies' green image and its connection with environmental initiatives in a certified hotel context, it is necessary to briefly explain the concept of overall image. Bloemer and Ruyter (1998) conceptualized it as consumers' total perceptions of the salient attributes of a firm. These authors consider overall image to be an evaluative concept about the functions of attributes of a specific object (e.g. product/service, company, etc.). The early works on image theory suggest that an individual's behavior is based on a psychological or distorted representation of objective reality that exists in the individual's mind (Martineau, 1958). Therefore, consumers' behaviors are more likely to be determined by an image than by objective reality. In service markets, such as the hospitality industry, overall image is expected to play an important role, especially as it is difficult to differentiate products or services based on tangible quality features (Han et al., 2009).

By focusing our analysis on the environmental or green image of companies, this concept has become increasingly relevant since the 1980s, when consumers become aware of environmental issues (e.g. increased drought, habitat destruction, rising sea levels, etc.) and their consequences for the planet. Consistent with previous research, the term of green (overall) image is defined in this study as a set of perceptions of a firm in a consumer's mind that is connected to environmental commitment and concerns (Martínez, 2015). A company's green image thus involves the environmental or green-related attributes of the firm that its stakeholders come to perceive (Castro et al., 2016). Specifically, a hotel's green image can be described as consumers' mental perceptions of a particular hotel company that are linked to environmental concerns and can be expressed as a function of the most important green attributes of a particular hotel company (Jeong et al., 2014). Similarly, customers' perceptions of the green image of a hotel can be measured by the function of green practices that are important for the evaluation of the greenness of the hotel. A good green image acts as a clear signal of a firm's environmental commitment towards its key stakeholders and represents an effective means to improve not only environmental differentiation but also profitability (Heikkurinen, 2010).

Research indicates that not only green practices but also environmental certifications can be components with which to develop the green image of a company (Heikkurinen, 2010; Jeong et al., 2014; Namkung & Jang, 2013; Wong et al., 2013). These studies propose that the green practices of environmentally-certified hotels offer various opportunities, such as improved stakeholder relationships and better corporate image and reputation. In this regard, environmental initiatives make a company's products and services unique, enhancing the firm's green image and thus increasing demand among environmentally conscious consumers. It therefore seems obvious that these ideas should be extrapolated, and to think that green attributes in the hotel industry (e.g. recycling, energy and water conservation, environmental

friendly packaging, etc.) can affect a customer's environmental image of a particular certified hotel. It is thus reasonable to propose the following hypothesis:

H₁: Customer perceptions of green practices positively affect the green image of environmentally-certified hotels.

2.2. Green image and customer behavioral intentions

Many scholars and practitioners in the tourism industry have shown great interest in the concept of a company's image due to its effects on customer behavioral decisions (Jeong et al., 2014; Lee et al., 2010; Ryu et al., 2012; Martínez, 2015; Durna et al., 2015). Building positive intentions in customers is an important goal for hospitality businesses, since these intentions will ultimately increase customer retention rates and profits (Han et al., 2009). Consumer behavioral intentions represent the likelihood of consumer engagement in a specific behavior (Ajzen & Fishbein, 1980). According to Fishbein and Ajzen (1975), behavioral intentions are the closest antecedents of actual behavior when examining individual decision-making processes. This implies that scholars are able to predict specific behaviors with considerable accuracy from intentions to engage in the behavior under consideration. Behavioral intentions have been studied by examining three key dimensions: willingness to repurchase products or services from a company, to pay a premium price for these products and to recommend the company or to make positive comments about the company's services (Zeithaml et al., 1996; Gao et al., 2016). Consistent with these previous studies, in this study in the green hospitality context such intentions reflect consumer intentions to stay, spread word-of-mouth or be willing to pay a premium price to stay at an environmentally-certified hotel.

Previous studies support the effect of the green image of companies on customer behavior. In the hospitality setting, Lee et al. (2010) support the relationship between a green cognitive and affective image and customer behavioral intentions (in terms of intention to revisit, intention to offer positive recommendations and willingness to pay a premium). Liu et al. (2014) found that perceived environmental image can enhance perceived brand quality and brand preference. In the same vein, Martínez (2015) shows that green image has a positive direct effect on customer trust, satisfaction and loyalty. Kim (2015) demonstrated that environmental programs recognized (perceived) by restaurant consumers generate favorable attitudes and intention to purchase from these companies. This study therefore proposes the following research hypotheses:

H₂: Customer perceptions of a hotel's green image positively affect their behavioral intentions:

H_{2a}: Customer perceptions of a hotel's green image positively affect their intentions to stay at environmentally-certified hotels.

H_{2b}: Customer perceptions of a hotel's green image positively affect their intentions to spread positive word-of-mouth about environmentally-certified hotels.

H_{2c}: Customer perceptions of a hotel's green image positively affect their intentions to pay a premium price for staying at environmentally-certified hotels.

2.3. The effect of environmental consciousness on the relationship between green image and customer behavioral intentions

The concept of environmental consciousness involves specific psychological factors related to an individual's propensity to engage in pro-environmental behaviors (Zelezny & Schultz, 2000). Environmental concern is an evaluation of, or an attitude towards, facts, one's own behavior or other's behavior with consequences for the environment (Schlegelmilch et al., 1996). In the context of this study, environmental consciousness refers to the degree to which hotel guests are concerned about environmental problems and are willing to make an effort to solve them (e.g. stay in an environmentally-certified hotel) (Dunlap & Jones, 2002).

The means-end theory (Gutman, 1982) and the Schwartz's values theory (Schwartz, 1977) provide a theoretical foundation on which to explore the direct effect of environmental

consciousness on consumer behavior and the effect of this variable on the relationship between a hotel's environmental image and customer behavioral intentions toward environmentally-certified hotels. According to the means-end theory, in a green context, customers choose to stay in a hotel that supports environmental initiatives (i.e. means) to achieve their desired values (i.e. the end). In this sense, customer values such as feelings of self-esteem are essential to explain pro-environmental behaviors (Karp, 1996). Past research has suggested that values play a role in specific situations when they are activated by a set of altruistic concerns (e.g. environmental degradation, global warming, resources depletion, etc.). For instance, Schwartz (1977) argued that altruistic behavior would occur when individuals hold personal norms with regard to a specific behavior (e.g. pro-environmental behavior). This author further argued that these norms are the results of both the awareness of the consequences of engaging (or not engaging) in the behavior and the ascription of personal responsibility for carrying out the altruistic behavior. In recent years, due to serious environmental problems, more consumers have developed environmental consciousness (Hur et al., 2013). As staying in an environmentally-certified hotel may be considered to show deeper pro-environmental values, the more consumers perceive themselves as environmentally conscious the more positive their behavioral intentions will be toward certified hotels.

Previous studies in the hospitality context support the direct effect of environmental consciousness on consumer behavioral intentions. For instance, Kang et al. (2012) found that guests with higher degrees of environmental concerns develop a greater willingness to pay more to stay in green hotels. On the other hand, Huang et al. (2014) suggest that customers with a high degree of environmental consciousness use products and services that are environmentally beneficial or protect the environment to a greater extent. Based on this discussion, this study proposes the following hypotheses:

H₃: Customer environmental consciousness positively affects their behavioral intentions:

H_{3a}: Customer environmental consciousness positively affects their intentions to stay at environmentally-certified hotels.

H_{3b}: Customer environmental consciousness positively affects their intentions to spread positive word-of-mouth about environmentally-certified hotels.

H_{3c}: Customer environmental consciousness positively affects their willingness to pay a premium price for staying at environmentally-certified hotels.

Research also supports the moderating effect of environmental consciousness on the perception of a hotel's environmental image and consumer behavior. Since green practices allow certified hotels to differentiate themselves from competitors and customer environmental concerns are associated with their personal values including self-esteem (Schwartz, 1977), customers who are more concerned about environmental problems may be more likely to perceive a hotel's green image and develop positive behavioral intentions toward certified hotels (e.g. visit intention, intention to spread word-of-mouth and willingness to pay) in order to satisfy their personal values increasing their levels of self-esteem. In this sense, the authors believe that it is not enough for hotel guests to perceive a company as green or environmentally-friendly (e.g. green image) as this may not sufficient motivate them to develop a favorable behavioral response towards the company. In this study the authors therefore propose and test not only the direct effect of customer environmental consciousness on their behavior but also its moderating effect, so that if customers are more sensitive to environmental problems (e.g. higher levels of environmental consciousness) the effect of an environmental image will be stronger on consumer behavioral intentions.

Prior studies confirm the relevant role of environmental consciousness as a moderator in the relationship between a company's environmental image and consumer behavior. In their study among restaurants Namkung and Jang (2013) indicated that consumer self-perception of environmental consciousness moderated their evaluation of green practices, a firm's green brand image and customer willingness to revisit the restaurant. These authors propose that consumers have different degrees of environmental consciousness so that their green behavior will be

different. They also confirm that consumers with stronger environmental consciousness have higher opinions of a restaurant's green image and show more positive future behavioral intentions given the stronger effect of green image on consumer intentions to revisit. Thus, this study proposes the following hypotheses:

H₄: For those customers with a high degree of environmental consciousness the relationship between the perception of a hotel's green image and their behavioral intentions will be stronger than for those customers with a low degree of environmental consciousness.

H_{4a}: For those customers with a high degree of environmental consciousness the relationship between the perception of a hotel's green image and their intentions to visit an environmentally-certified hotel will be stronger than for those customers with a low degree of environmental consciousness.

H_{4b}: For those customers with a high degree of environmental consciousness the relationship among the perception of a hotel's green image and their intentions to spread positive word-of-mouth about an environmentally-certified hotel will be stronger than for those customers with a low degree of environmental consciousness.

H_{4c}: For those customers with a high degree of environmental consciousness the relationship among the perception of a hotel's green image and their willingness to pay more to stay at an environmentally-certified hotel will be stronger than for those customers with a low degree of environmental consciousness.

3. Method

A questionnaire was developed aimed at guests staying at Spanish hotels. The authors decided to study hotel guests to guarantee that the individuals who were interviewed had sufficient knowledge of hospitality services and were used to make decisions on hotel booking, so they could take into consideration the fact that a hotel is environmentally certified. For each item respondents were asked to rate their level of agreement (or disagreement) using a 7-point Likert scale. Participants were introduced via general information about environmental certifications and their goals, in order to ensure that respondents were able to manifest their judgments about these schemes. The survey solicited information regarding demographic and travelling characteristics of respondents, including gender, age, level of education, occupation, purpose of travel and previous experience with a certified hotel. We adopted the measurements scales from previous studies for all the constructs of our model. These items are presented in the appendix. A convenience sample was used (non-probabilistic sampling procedure). With the aim of ensuring greater representativeness of the data, the authors employed multistage sampling by quotas based on guests' gender and age to replicate the profile of the Spanish population. After eliminating invalid questionnaires we obtained 502 surveys.

4. Results

In order to test the research hypotheses proposed, the authors followed a PLS-SEM approach which is especially suited for the estimation of moderating effects. This study followed a two-step approach to analyze and interpret PLS results (Chin, 2010): (1) assessment of the outer (measurement) model, and (2) testing the inner (structural) model. Moderating effects were tested following the "product indicator approach" (Chin et al., 2003) which is provided by default in SmartPLS and is applicable when the moderator and the independent constructs are reflective, as is the case in our study.

4.1. Evaluation of the measurement model

The results obtained in the estimation of the measurement model confirm the appropriate psychometric properties of the measurement scales (e.g. reliability and validity). The reliability of measurement scales is confirmed (Table 1), as the Cronbach's Alpha and compound reliability coefficients (Bagozzi & Yi, 1988) are, in every case, clearly above the required minimum values of 0.7 (Hair et al., 2010). The convergent validity of the measurement

instruments is supported (Table 1) as the values of the AVE coefficient are, in all cases, greater than 0.50 at the construct level and all item loadings are above or very close to 0.7 and are significant at the 0.01 level. Only in the case of item ENC1 (for environmental consciousness) did the item loading take a value of 0.64, but following the recommendations by Hair et al. (2013) we decided to keep the item in the scale as the reliability of the instrument is over the recommended limits.

Third, this study follows three approaches to measure the discriminant validity of the measurement scales (Tables 2 and 3). The cross loadings of an item's outer loading on the associated construct are greater than all of its loadings on other constructs (e.g. cross loadings). All the factors fulfill the criterion proposed by Fornell and Larcker (1981), as the square root of each AVE coefficient is greater than the correlations between the constructs. Finally, in all cases, the heterotrait-monotrait (HT-MT) values are below the threshold of 0.85 of 0.90 (Henseler et al., 2015) (Table 3). These results confirm the discriminant validity of the measurement scales used in the empirical research.

TABLE 1
Measurement Model

Construct	Items	Weights	Cronbach's alpha	Composite Reliability	AVE
Green practices (GRE)	GRE1	0.84	0.90	0.93	0.77
	GRE2	0.89			
	GRE3	0.90			
	GRE4	0.88			
Green image (GIM)	GIM1	0.88	0.88	0.92	0.74
	GIM2	0.90			
	GIM3	0.87			
	GIM4	0.79			
Environmental consciousness (ENC)	ENC1	0.64	0.89	0.91	0.57
	ENC2	0.83			
	ENC3	0.70			
	ENC4	0.81			
	ENC5	0.70			
	ENC6	0.79			
	ENC7	0.70			
	ENC8	0.84			
Stay intention (STA)	STA1	0.91	0.89	0.93	0.82
	STA2	0.92			
	STA3	0.89			
Intention to spread word-of-mouth (WOM)	WOM1	0.92	0.92	0.95	0.81
	WOM2	0.93			
	WOM3	0.85			
	WOM4	0.90			
Willingness to pay a premium (PAY)	PAY1	0.95	0.89	0.95	0.90
	PAY2	0.95			

TABLE 2
Results for Fornell and Larcker's criterion for discriminant validity

	Green practices	Green Image	Environmenta l Consciousness	Intention Stay	Intention WOM	Intention Pay
Green practices	0.880 ^a					
Green Image	0.739	0.859 ^a				
Environmental Consciousness	0.368	0.433	0.752 ^a			
Intention Stay	0.292	0.345	0.655	0.905 ^a		
Intention WOM	0.223	0.297	0.708	0.803	0.902 ^a	
Intention Pay	0.266	0.356	0.628	0.724	0.718	0.947 ^a

^a= square root of the variance shared between the constructs. Off diagonal elements are the correlations among constructs.

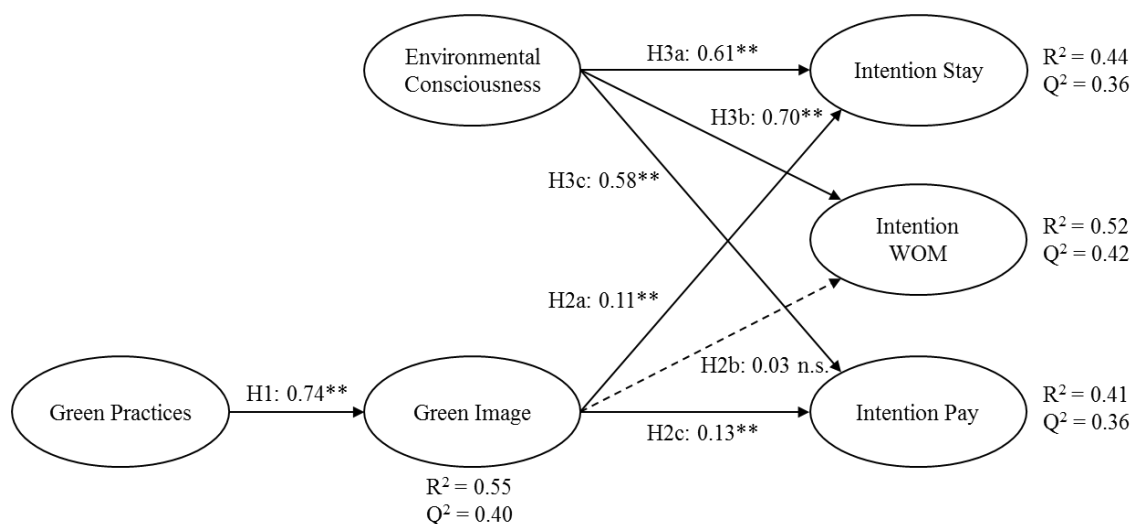
TABLE 3
Results of heterotrait-monotrait ratio (HT-MT) analysis

	Green practices	Green Image	Environmenta l Consciousness	Intention Stay	Intention WOM	Intention Pay
Green Image	0.826					
Environmental Consciousness	0.431	0.502				
Intention Stay	0.326	0.389	0.717			
Intention WOM	0.247	0.331	0.757	0.887		
Intention Pay	0.300	0.405	0.684	0.816	0.794	

4.2. Evaluation of the structural model

This research follows the three-step approach proposed by Aldás (2016) to analyze the structural model: (1) coefficient of determination (R^2 value) for the latent variables, (2) predictive relevance Q^2 (blindfolding), and (3) significance of the structural model path coefficients and effect size (bootstrapping). This study uses a resampling bootstrap method with 5000, along with each bootstrap sample containing the same number of observations as the original sample (e.g. 502 bootstrap cases), to generate standard errors and t-values (Chin, 1998; Hair et al., 2013). The study assesses estimated path relationships among the latent variables in the model through the sign and magnitude of path coefficients. The results of the estimation of the structural model are summarized in Figure 1. R^2 statistics take values above 0.40 in all cases, which shows that the theoretical model proposed provide a moderate explanation of the variance of the dependent variables, according to the reference levels proposed by Chin (1998). Additionally, using the blindfolding procedure, all Q^2 values are considerably above zero, thus supporting the predicting relevance of the model regarding the dependent variables. Finally, the significance of the structural model path coefficients and effect size was tested using the bootstrapping procedure (two-tails test). Table 4 summarizes the results obtained for the direct and moderating effects, including the path coefficients, effect size (f^2), t values and level of significance. The empirical evidence obtained in this study therefore supports all the research hypotheses proposed in our theoretical model, except the direct effect of environmental image on intention to spread positive word-of-mouth about environmentally-certified hotels (Hypothesis H2b). In addition, the Cohen's f^2 for the significant paths in the inner model were all above 0.02, with the only exception of the moderating effect of environmental consciousness on the relationship between green image and intention to pay. These results suggest satisfactory effects for the endogenous latent constructs (Henseler et al., 2009).

FIGURE 1
Results of the structural model



**p < 0.01; *p < 0.05

TABLE 4
Significance testing results of the structural model path coefficients

Structural path	Path coefficient	Effect size (f2)	T value
H1: Green practices → Green Image	0.74**	1.20	30.551
H2a: Green Image → Intention Stay	0.11**	0.02	2.679
H2b: Green Image → Intention WOM	0.03	0.00	0.879
H2c: Green Image → Intention Pay	0.13**	0.02	2.932
H3a: Environmental Consciousness → Intention Stay	0.61**	0.53	18.237
H3b: Environmental Consciousness → Intention WOM	0.70**	0.79	26.464
H3c: Environmental Consciousness → Intention Pay	0.58**	0.44	17.433
H4a: Moderating Effect 1 → Intention Host	0.09**	0.02	2.973
H4b: Moderating Effect 2 → Intention WOM	0.12**	0.03	4.891
H4c: Moderating Effect 3 → Intention Pay	0.06*	0.01	2.090

**p < 0.01; *p < 0.05

The empirical evidence obtained in this study confirms the direct and positive effect of consumer perceptions of a hotel's green practices on their green image (hypothesis H1). Our results also support the hypothesis that perceived green image of hotels positively affects consumer intention to stay at environmentally-certified hotels (Hypothesis H2a) and to pay a premium price for it (Hypothesis H2c), however, no significant effect of green image on intention to spread positive word-of-mouth about environmentally-certified hotels was found (Hypothesis H2b). According to this evidence, having a positive green image is a clear incentive for consumers to choose a hotel and pay a higher price, but it does not lead to positive WOM. These results also show that perceptions about a hotel's green practices have an indirect and positive effect on consumer intentions to stay at environmentally-certified hotels and to pay a premium price (through its effect on green image). This study also supports the strong effect of consumer environmental consciousness on behavioral intentions with regard to environmentally-certified hotels. The higher the environmental consciousness of consumers, the higher is their intention to stay at environmentally-certified hotels (Hypothesis H3a), to spread positive word-of-mouth about them (Hypothesis H3b) and to pay a premium price for them (Hypothesis H3c). Finally, consumer environmental consciousness also exerts a moderating effect on the causal relationship of green image on behavioral intentions. In particular, the higher the environmental consciousness, the stronger the effect of the green image on consumer

intentions to stay at environmentally-certified hotels (Hypothesis H4a), to spread positive word-of-mouth (Hypothesis H4b) and to pay a premium price (Hypothesis H4c).

5. Discussion

5.1. Theoretical implications

This research contributes to our understanding of the disconnect between environmental perceptions and behavioral intentions when it comes to the consumption of green hotel services, by examining the alignment of customer perceptions and the perceived behavior of environmentally-certified hotels across several levels of customer environmental consciousness. This research makes theoretical contributions to the sustainable tourism literature in general and the hospitality literature in particular, through the convergence of different research streams, specifically environmental psychology and consumer behavior. This study integrates internalized perceptions and perceptions of the firm (Gao et al., 2016) into a model to explain pro-environmental responses toward certified hotels following a holistic approach. By considering the degree of a customer's environmental consciousness and their perceptions of green initiatives alongside the idea that a hotel's green image is an important construct for understanding green consumer behavior, this research suggests a research framework to examine customer behavioral intentions toward environmentally-certified hotels. The results presented here agree with past studies using both categorizations to explore consumer responses toward environmentally friendly products and services (Jeong et al., 2014; Han et al., 2009). Nevertheless, this study expands the previous research, and other studies such as those by Baker et al. (2011), Chen and Tung (2009), Di Pietro et al. (2013) or Kang et al. (2012) by including different constructs as mediating and moderating factors.

This study presents additional theoretical contributions to the academic literature. No prior research has investigated the relationship among green practices, customer degree of environmental consciousness and their behavioral intentions in relation to a company's green image in the hotel sector. In this sense, previous studies in the hospitality literature have had an inclination to explore separate relationships among environmental consciousness, green image and green consumer behavior (Han et al., 2009; Huang et al., 2014; Jeong et al., 2014; Lee et al., 2010; Namkung & Jang, 2013). Our research distinguishes itself from previous empirical studies in considering the interactive effect of green image and environmental consciousness in promoting customer behavioral intentions in light of environmental psychology and consumer behavior issues. This study demonstrates that customer perceptions of green practices positively affect the environmental images of companies, which also positively affects customer behavioral intentions in terms of staying and paying a premium for staying at an environmentally-certified hotel. The effect of green image on consumer willingness to spread positive word-of-mouth is not confirmed. By implementing green practices, environmentally-certified hotels can motivate customers to shape a mental image of a particular hotel's level of commitment toward environmental issues and the way in which the company presents itself with respect to its social responsible activities, which is consistent with previous research (Durna et al., 2015). In this sense, this study demonstrates that customer perceptions of green practices act as a major driver when choosing a certified hotel. It is proved that green practices are a meaningful element, as are other key hotel service factors, such as quality service, infrastructure or the professionalism of employees in influencing customer accommodation decisions (as previous studies have demonstrated such as the research by Alexander (2002), Briggs, Sutherland and Drummond (2007) or Bruns-Smith et al. (2015), among others), which means that customers recognize the direct benefits of an environmentally-certified hotel's attributes.

The third theoretical contribution is the extension of environmental psychology literature through the introduction of customer environmental consciousness in our model, to explore its role as a direct and moderating mechanism on the effect of environmental image on customer behavioral intentions. This study provides empirical evidence that customer environmental

consciousness is a direct predictor of behavioral intentions with regard to environmentally-certified hotels, suggesting that becoming environmentally concerned results in the adoption of automatic environmental purchase preferences. In this sense, this study proves that the higher environmental consciousness of consumers, the higher is their intention to stay at environmentally-certified hotels, to spread positive word-of-mouth about them and to pay a premium price for them. Therefore, this research proves that when consumers have different degrees of environmental consciousness, their green behavior will also be different, which is consistent with the views of past scholars (Huang et al., 2014; Kang et al., 2012). We have also demonstrated the moderating effect of this variable in the connection between a hotel's green image and customer behavior. The higher the environmental consciousness, the stronger the effect of environmental image on consumer intention to stay at environmentally-certified hotels, to spread positive word-of-mouth and to pay a premium price. These significant relationships can be explained by the fact that those customers with high levels of environmental consciousness are more likely to have adequate information about a hotel's green initiatives and environmental certifications, which in turn has a significant impact on certified hotels.

5.2. Managerial implications

These findings have important managerial implications for tourism and hospitality companies. First at all, this study demonstrates that green image is a powerful tool with which to develop favorable customer responses in a certified hotel context. Hospitality managers should design strategies to raise perception of the environmental green-related features of companies. With individuals becoming increasingly environmentally aware, environmental certification programs can become part of a hotel's green image, together with traditional factors such as service quality, price, infrastructure or location. For instance, hoteliers could implement visible environmental practices and obtain ecological certifications. Several international organizations offer third-party environmental certifications, such as the U.S. Green Building Council, which offers an initiative called Leadership in Energy and Environmental Design (LEED) which certifies resource-efficient constructions. Other initiatives such as the ISO 14001 or the ECO-Management and Audit Scheme (EMAS) help hotel companies to evaluate, manage and improve their environmental performance. By putting these certifications into effect hoteliers may create initiatives aimed at conserving energy and water, recycling, designing environmentally-friendly products and services, implementing sustainable building practices or developing environmental protection issues, among other things.

Customer perceptions of environmental image might be largely affected by corporate communications related to green and environmental issues, however, these programs should be introduced by developing an adequate green positioning strategy. This approach ought to be drawn on both cognitive and emotional aspects of corporate image (Lee et al., 2010). Consequently, practitioners should communicate not only functional but also the affective benefits of environmentally-certified hotels. In this sense, a functional green positioning strategy is developed by reporting the characteristics and advantages of green products and services. For instance, Meliá Hotels International has recently signed an electricity supply contract with the company ENDESA, so that all of its hotels and offices in Spain operate with 100% renewable energy. Hospitality companies should also communicate emotional benefits such as the guests' sense that their decision to stay in an environmentally verified hotel contributes to saving the planet (Wong et al., 2013). In both cases, hotels must emphasize the benefits to consumers from a green purchase perspective, as well as the additional experience gained and the core purchase attributes of service quality, convenience and price (Hur et al., 2013). Hospitality companies have to develop an effective positioning strategy to communicate functional and emotional benefits to their customers. An integrated communication strategy with multiple information channels (e.g. advertising, public relations, social media, etc.) should be valuable for encouraging customers to believe that environmentally-certified hotels make a difference in protecting and improving the environment. Managers should also emphasize the relevance of environmental certifications by communicating to customers the benefits of implementing these schemes and the achievements obtained after their implementation,

highlighting their impact on society and different stakeholders. For instance, Meliá Hotels International has 141 certifications in sustainable tourism with different seals (e.g. Earthcheck, Biosphere, Travelife, LEED, ISO, Green Leaders, etc.). After obtaining these certifications, some of the most remarkable environmental achievements in recent years have been the reduction of the company's carbon footprint (-3.81%) along with its water (-7.66%) and energy consumption (-9.40%). In this way Meliá has minimized its environmental impact by 9.5%. This case can show consumers how environmental initiatives can generate a real impact on society and that these practices are not just marketing ploys, demonstrating that environmentally-certified hotels really have a vocation for promoting sustainable tourism.

To conclude, hospitality companies should promote environmental consciousness since customers are often uninformed about the negative impacts that hotel companies have on the environment. To do so, companies may use green marketing strategies developing specific programs to educate guests. Customers might thus identify with the firm's implementation of environmental strategies, which will enhance hotel performance (Huang et al., 2014). For instance, hotel firms may organize conferences, seminars, visits to places of interest for their environmental biodiversity or contests and competitions to encourage guests to become involved in the environmental programs of companies. Similarly, hospitality managers may help customers to understand how they can minimize negative impacts, for instance by providing information about ecological topics in public areas of hotels (e.g. rooms, information desks, etc.) or using several communication channels (e.g. annual reports, corporate web pages, social media sites, etc.).

Finally, there are several limitations to this study. The empirical results were obtained from the hotel industry and this cannot be broadly applied to other contexts. It would be interesting to explore other accommodation (e.g. hostels, apartment rental services, etc.) and tourism industries (e.g. transportation, leisure activities, etc.) to generalize the findings presented here. This study may also not fully represent the experience across different hotel segments such as the luxury market segment. Future studies could also include internal (e.g. customer motives, values, attitudes, emotions or sense of responsibility) and external (e.g. institutional, economic, social or cultural aspects) factors to increase the explanatory power of the proposed model.

References

- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Aldás, J. (2016). *Modelización estructural con PLS-SEM: Constructos de segundo orden* [Structural modeling with PLS-SEM: Second order constructs]. Madrid: ADD Editorial.
- Bagozzi, R.P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94.
- 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.
- Bohdanowicz, P. (2005). European hoteliers' environmental attitudes: Greening the business. *Cornell Hospitality Quarterly*, 46(2), 188-204.
- Bloemer, J., & de Ruyter, K. (1998). On the relationship between store image, store satisfaction and store loyalty. *European Journal of Marketing*, 32(5/6), 499-513.
- Castro, G.M., Amores-Salvado, J., & Navas-López, J.E. (2016). Environmental management systems and firm performance: Improving firm environmental policy through stakeholder engagement, *Corporate Social Responsibility and Environmental Management*, 23(4), 243-256.
- Chan, S.W. (2013). Managing green marketing: Hong Kong hotel managers' perspective. *International Journal of Hospitality Management*, 34(1), 442-461.

- Chen, M.F., & Tung, P.J. (2010). The moderating effect of perceived lack of facilities on consumers' recycling intentions. *Environmental Behavior*, 42(6), 824-844.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G.A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295-336). Mahwah, NJ: Lawrence Erlbaum Associates.
- Chin, W. W. (2010). How to write up and report PLS analyses. In V.E. Vinzi, W.W. Chin, J. Henseler, & H. Wang (Eds.), *Handbook of partial least squares: Concepts, methods and applications* (pp. 655-690). Berlin Heidelberg: SpringerVerlag.
- Darnall, N., & Sides, S (2008). Assessing the performance of voluntary environmental programs: Does certification matter? *Policy Studies*, 36(1), 95-117.
- Di Pietro, R., Cao, Y., & Partlow, C. (2013). Green practices in upscale foodservice operations: Customer perceptions and purchase intentions. *International Journal of Contemporary Hospitality Management*, 25(5), 779-796.
- Dunlap, R., & Jones, R. (2002). Environmental concern: Conceptual and measurement issues. In R. Dunlap & M. Michelson (Ed), *Handbook of Environmental Sociology* (pp. 482-542). London: Greenwood Press.
- Durna, U., Dedeoglu, B.B., & Balikcioglu, S. (2015). The role of servicescape and image perceptions of customers on behavioral intentions in the hotel industry. *International Journal of Contemporary Hospitality Management*, 27(7) 1728-1748.
- Esparon, M., Gyuris, E., & Stoeckl, N. (2014). Does ECO certification deliver benefits? An empirical investigation of visitors' perceptions of the importance of ECO certification's attributes and of operators' performance. *Journal of Sustainable Tourism*, 22(1), 148-169.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Gao, Y., Mattila, A., & Lee, S. (2016). A meta analysis of behavioral intentions for environment-friendly initiatives in hospitality research. *International Journal of Hospitality Management*, 54, 107-115.
- Geerts, W. (2014). Environmental certification schemes: Hotel managers' views and perceptions. *International Journal of Hospitality Management*, 39, 87-96.
- Gutman, J. (1982). A means-end chain model based on consumer categorization processes. *Journal of Marketing*, 46(2), 60-72.
- Hair, J.F., Anderson, R.E., Tatham, R.L., & Black, W.C. (2010). *Multivariate Data Analysis*. New Jersey, NJ: Prentice Hall.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 46(1/2), 1-12.
- Han, H., Hsu, L.T., & Lee, J.S. (2009). Empirical investigation of the roles of attitudes toward green behaviors, overall image, gender and age in customers' eco-friendly decision-making process. *International Journal of Hospitality Management*, 28, 519-528.
- Heikkurinen, P. (2010). Image differentiation with corporate environmental responsibility. *Corporate Social Responsibility & Environmental Management*, 17(3), 142-152.
- Henseler, J., Ringle, C.M., & Sinkovics, R.R. 2009. The use of partial least squares path modelling in international marketing. *Advances in International Marketing*, 20, 277-319.
- Henseler, J., Ringle, C. M., & Sarstedt, M. 2015. A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.

- Hu, W., & Wall, G. (2005). Environmental management, environmental image and the competitive tourism attraction. *Journal of Sustainable Tourism*, 13(6), 617-635.
- Huang, H.C., Lin, T.H., Lai, M.C., & Lin, T.L. (2014). Environmental consciousness and green customer behavior: An examination of motivation crowding effect. *International Journal of Hospitality Management*, 40, 139-149.
- Hur, W.M., Kim, Y., & Park, K. (2013). Assessing the effects of perceived value and satisfaction on customer loyalty: A green perspective. *CSR and Environmental Management*, 20(3), 145-156.
- Jeong, E., Jang, S., Day, J., & Ha, S. (2014). The impact of eco-friendly practices on green image and customer attitudes: An investigation in a café setting. *International Journal of Hospitality Management*, 41, 10-20.
- Kang, K.H., Stein, L., Heo, C., & Lee, S. (2012). Consumers' willingness to pay for green initiatives of the hotel industry. *International Journal of Hospitality Management*, 31, 564-572.
- Karp, D.G. (1996). Values and their effect on pro-environmental behavior. *Environment and Behaviour*, 28(1), 111-133.
- Karlsson, L., & Dolnicar, S. (2016). Does eco certification sell tourism services? Evidence from a quasi-experimental observation study in Iceland. *Journal of Sustainable Tourism*, 24(5), 694-714.
- Kim, Y. (2015). Consumer responses to the food industry's proactive and passive environmental CSR, factoring in price as CSR tradeoff. *Journal of Business Ethics*, doi:10.1007/s10551-015-2671-8.
- 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 behavioral intentions, *Journal of Sustainable Tourism*, 18(7), 901-914.
- Line, N.D., & Hanks, L. (2016). The effects of environmental and luxury beliefs on intention to patronize green hotels: The moderating effect of destination effect. *Journal of Sustainable Tourism*, 24(6), 904-925.
- Liu, M., Wong, I., Shi, G., Chu, R., & Brock, J. (2014). The importance of corporate social responsibility (CSR) performance and perceived brand quality on customer-based brand preference. *Journal of Services Marketing*, 28(3), 181-194.
- Martínez, P. (2015). Customer loyalty: Exploring its antecedents from a green marketing perspective. *International Journal of Contemporary Hospitality Management*, 27(5), 896-917.
- Martineu, P. (1958). The personality of retail store. *Harvard Business Review*, 36(1), 47-55.
- Millar, M., Mayer, J., & Baloglu, S. (2012). Importance of green hotel attributes to business and leisure travelers. *Journal of Hospitality & Marketing Management*, 21(4), 395-413.
- Namkung, Y., & Jang, S. (2013). Effects of restaurant green practices on brand equity formation. Do green practices really matter? *International Journal of Hospitality Management*, 33, 85-95.
- Ryu, K., Lee, H.R., & Kim, W.G. (2012). The influence of the quality of the physical environment, food, and service on restaurant image, customer perceived value, customer satisfaction and behavioral intentions. *International Journal of Contemporary Hospitality Management*, 24(2), 200-223.
- Schwartz, S.H. (1977). Normative influences on altruism. In L. Bertowitz (Ed.), *Advances in experimental social psychology* (pp. 221-279). New York: Academic Press.
- Schlegelmilch, B., Bohlen, G., & Diamantopoulos, A. (1996). The link between green purchasing decisions and measures of environmental consciousness. *European Journal of Marketing*, 30(5), 35-55.

- Wong, C., Lai, K. Shang, K., & Lu, C. (2013). Uncovering the value of green advertising for environmental management practices. *Business Strategy and the Environment*, 23(2), 117-130.
- Zeithaml, V.A., Berry, L.L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60(2), 31-46.
- Zelezny, L.C., & Schultz, P.W. (2000). Promoting environmentalism. *Journal of Social Issues*, 56(3), 365-371.

Appendix

Ident.	Item
Perception of green practices	Adapted from Jeong et al. (2014)
GRE1	I believe that environmentally-certified hotels use recyclable disposable containers
GRE2	I believe that environmentally-certified hotels recycle their waste
GRE3	I think that environmentally-certified hotels have equipment to reduce water consumption
GRE4	I think that environmentally-certified hotels have equipment to reduce energy consumption
Perception of green image	Adapted from Jeong et al. (2014)
GIM1	Environmentally-certified hotels behave in a socially responsible way
GIM2	I think that environmentally-certified hotels are responsible regarding environmental issues
GIM3	I believe that environmentally-certified hotels are concerned about environmental conservation
GIM4	I think that environmentally-certified hotels not only care about generating profits but also about the environment and consumers
Stay intention	Adapted from Gao et al. (2016)
STA1	I intend to stay in an environmentally-certified hotel
STA2	I am planning to stay in an environmentally-certified hotel
STA3	I will make an effort to stay in an environmentally-certified hotel
Intention to spread word-of-mouth	Adapted from Gao et al. (2016)
WOM1	I often recommend environmentally-certified hotels
WOM2	I usually mention services provided by environmentally-certified hotels to other people
WOM3	I only have positive comments about environmentally-certified hotels
WOM4	I have described my experience with environmentally-certified hotels to more people compared to that with non-certified hotels
Willingness to pay a premium	Adapted from Gao et al. (2016)
PAY1	It is acceptable to pay more to stay in an environmentally-certified hotel
PAY2	I am willing to pay more to stay in an environmentally-certified hotel
Environmental consciousness	Adapted from Huang et al. (2014)
ENC1	I feel frustrated when I think of hotel companies that carry out their business activities by polluting the environment
ENC2	When two hotel companies are similar, I tend to select the one that harms the environment less, even if it is more expensive
ENC3	If the services provided by a hotel industry seriously damage the environment, I will refuse to purchase them
ENC4	When choosing a hotel company, I always select the one with environmental certification, even if it is more expensive
ENC5	I regularly recycle at home
ENC6	I often purchase products that use less paper or cardboard for packaging
ENC7	I am conscious about the actions I can take to improve the environment
ENC8	I am usually informed about environmental issues