

Paying a Premium for Green-Label Hotels: The Role of the Mismatched Hotel-OTA Involvement

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Abstract

Understanding how green hotels can gain marketing advantages could motivate hoteliers to adopt green practices during construction and operation. This study investigates the mediation role of perceived psychological benefits on consumers' environmental concerns and their willingness to pay a measurable premium for green-label hotels. Data gathered from 540 Chinese consumers revealed that a mismatch between the involvement of hotels and online travel agencies (OTAs) hampers the relationship between environmental concerns and perceived psychological benefits of booking green-label hotels on OTAs, further influencing consumers' willingness to pay a premium. This research uncovers an overlooked but crucial factor that reduces consumer satisfaction with the hotel-choice process and why it makes consumers willing to pay a premium for green-label hotels. Drawing from the findings, recommendations are also proffered for hoteliers to conceive and execute green marketing tactics.

Keywords

environmental concerns, involvement, psychological benefits, willingness to pay a premium price, green hotels

Introduction

As one of the largest industries in China, the hospitality industry has been recognized as a key enabler of economic development, contributing to 9.3% of China's gross domestic product in 2019 (Textor, 2021a). However, an investigation of the carbon footprint in China showed that more than 20% of total CO₂ emissions are caused by hospitality-related activities (L. Li et al., 2019). Therefore, the public has gradually developed an expectation of sustainable practices in the Chinese hospitality industry in recent years. Among sectors within the hospitality industry, the lodging industry is the pioneer in applying green practices (Wang et al., 2018). As the primary form of the lodging industry, hotels have been identified as the major energy- and water-intensive sector in day-to-day operations (Verma et al., 2019). Some hoteliers have

gradually transformed their businesses into environmentally friendly models to acknowledge consumers' environmental concerns and green demands. These are known as green hotels, indicating that hoteliers consider the environmental sustainability of their service to be the foundation of their operations, and would like to adopt green practices to minimize the operational impact on the natural environment (Lee et al., 2010).

However, today, green hotels account for a relatively small percentage of the entire lodging industry. LEED certification is one of the most recognizable certifications for sustainability construction. Until October 2022, only 117 hospitality properties in the United States were certified by Leadership in Energy and Environmental Design (LEED; U.S. Green Building Council, 2022). In China, less than 10% of hotels were certified as green hotels by the China

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Hospitality Association (Zou et al., 2021). Evidence shows that cost is still one of the major challenges for hotel developers and hoteliers in adopting green practices, especially in countries with less strict regulations (Liu & Hu, 2021; Rahman & Reynolds, 2016). For example, Rah (2019) suggested that building a green hotel may cost 10% more than conventional construction. Another report suggested that satisfying the LEED standard may cost as much as 30% above conventional construction, especially in countries with a relatively low regulatory standard for green practices (Younis, 2019). As a result, it is crucial to convince hoteliers of the potential benefits and competitive advantages of investing in green practices.

According to previous studies, individuals with stronger environmental concerns are more inclined to choose green hotels as a way to express their beliefs and worldviews (Suki, 2016). However, as the price premium of green hotels increases, consumers' enthusiasm for green hotels may wane, due to the increased financial burden (i.e., they need to sacrifice more on finance; S. Kang & Nicholls, 2021). Social exchange theory holds that consumers are less likely to choose products with premium prices unless they perceive sufficient benefits from purchasing to justify (i.e., trade-off) the financial sacrifice (Jiang & Kim, 2015). In particular, previous research has indicated that consumers expect more psychological benefits from green purchases than material benefits (Verma et al., 2019). For example, consumers may feel the "warm glow of giving" when they believe their green purchases will benefit the environment (Andreoni, 1990).

Nevertheless, there is a gap in the existing literature when it comes to using measurable costs to investigate the role of psychological benefits in mediating the relationship between consumers' environmental concerns and their willingness to pay a premium for green-label hotels. The general expression of price premium (e.g., more expensive) may increase the generalizability of the study and could be applied in the preliminary stages of the literature. However, this approach does not provide an anchor for participants to estimate the extra cost of green-label hotels, and participants will use whatever anchor point is more salient when they are interviewed (Simonson & Drolet, 2004). Therefore, based on social exchange theory, this study incorporates a measurable price (18%), suggested by the literature as an anchor, to add new insight to the literature and provide more practical implications. This study aims to examine the interplay between consumers' environmental concerns, perceived psychological benefits, and willingness to pay more (18%) for green-label hotels.

Moreover, involvement measures consumers' perceived relevance of the decision behavior (Poiesz & de Bont, 1995). Studies have shown that consumers enjoy the process of making decisions when their involvement level is high, whereas they prefer effortless decisions when their involvement level is low (e.g., Hawkins & Hoch, 1992; Hoyer,

1984). In purchasing, a behavior can be described in terms of product and channel (i.e., "where" and "what") (Mallapragada et al., 2016). However, most hospitality studies have examined the product characteristic (i.e., product involvement), and few have explored the channel characteristic (i.e., channel involvement), let alone their interaction. There is a possibility that customers may demonstrate high involvement with a product but low involvement with a channel, and vice versa. For example, in booking green-label hotels on online travel agencies (OTAs), consumers may be highly involved with hotel products and demonstrate low involvement with the OTA channel. Such a conflict will result in a phenomenon known as cognitive dissonance. Based on cognitive dissonance theory, individuals feel psychologically uncomfortable when two relevant cognitions about the decision are inconsistent (Bawa & Kansal, 2008; Festinger, 1957; Harmon-Jones & Mills, 2019). Therefore, this study further explores the impact of the dissonance caused by the conflict between the involvement of the hotel and the OTA on the relationships between consumers' environmental concerns, perceived psychological benefits, and willingness to pay a premium.

Literature Review

Environmental Concerns, Psychosocial Benefits, and Willingness to Pay More

According to social identity theory and the theory of planned behavior, consumers' behaviors will be determined by their beliefs and attitudes toward behaviors (Ajzen, 1991). In addition, means-end theory and value-belief-norm theory suggest that individuals would like to purchase products that reflect their personal values and worldview (e.g., Gutman, 1982). Therefore, to satisfy consumers' needs, the green label has been widely adopted in the hospitality online booking platform in promoting green hotels as quick catch clues to suggest certified green practices (Vinzencz et al., 2019). Several studies have indicated that environmental concerns, the assessment of consumers' emotional reactions, and psychological needs for environmental practices, are positively correlated with consumers' responses to green labels, such as willingness to pay for green-label hotels (Castro, 2006; Han, 2021; S. Kang & Nicholls, 2021).

However, unlike willingness to pay, willingness to pay a premium requires financial sacrifice. The social exchange theory indicates that consumers' decision-making is a trade-off between perceived benefits and sacrifices (Jiang & Kim, 2015). Specifically, the theory applies cost-benefit analysis to explain consumers' sacrifice behaviors, as consumers' willingness to sacrifice will be increased when they perceive more benefits (Cropanzano & Mitchell, 2005). For example, Q. Li and colleagues (2018) suggested that consumers who perceive a high level of benefits concerning green housing will perceive the risks associated with green housing purchasing, such as the

functional and policy risks, as less important. In the hospitality industry, Rahman and Reynolds (2016) also indicated that the perceived benefits of booking green hotels might lead to the financial sacrifice of paying extra for green hotels.

Nevertheless, green purchases in the hospitality industry, such as booking green hotels, may not provide immediate material benefits to consumers. In most cases, green purchases produce psychological rather than direct material benefits to consumers (Hartmann & Apaolaza-Ibanez, 2012). For example, Verma and colleagues (2019) also suggested that consumers' concerns about water conservation in hotels are altruistic rather than motivated by material benefits, like saving on travel expenses or water safety. Rahman and Reynolds (2019) also indicated that some green practices may reduce consumer convenience, such as not using disposable and single-dose supplies.

Altruism, or the "warm glow of giving" (Andreoni, 1990), is a key psychological benefit of green purchasing. This warm glow comes from the moral satisfaction of contributing to society through eco-friendly actions, which can lead to positive psychological effects (Kahneman & Knetsch, 1992). Moreover, green purchases could also be regarded as a self-expression of supporting eco-friendly practices, which could increase consumers' cognitive satisfaction that benefits them psychologically (Aaker, 1999). Hence, green purchases could fulfill consumers' environmentally relevant self-expressive or psychological needs for altruism and enhance their psychological benefits (Peattie, 2001). The more psychological benefits consumers perceive from booking green-label hotels, the fewer psychological hassles they will face in paying a premium for those hotels (Dhar & Wertenbroch, 2012). Therefore, the relationship between consumers' environmental concerns and willingness to pay a premium for green-label hotels will be mediated by their perceived psychological benefits. Hence, the following hypothesis was proposed:

H_1 : Psychological benefits mediate the relationship between consumers' environmental concerns and their willingness to pay a premium for green-label hotels.

Hotel Involvement and Online Travel Agency Involvement

Involvement describes one's perceived personal relevance (Poiesz & de Bont, 1995). Consumer involvement occurs whenever their behavior reflects how they perceive themselves (Petty et al., 1981). Depending on the strength of the link and the importance of the behavior, the decision-making process will vary (Bauer et al., 2006). Consumers with a high level of involvement always engage in the choice process to interact with their knowledge (H. H. Chang & Chuang, 2011). In contrast, individuals with a low level of involvement engage less and make effortless decisions (Hawkins & Hoch, 1992; Hoyer, 1984).

There has been a long-standing study of involvement in the hospitality literature. Product involvement (e.g., wine and hotel involvement), especially, has received the most prevalent attention (Brown et al., 2007; Cox, 2009; Rahman, 2018). As the degree of product involvement determines the individual's association with the world through the product, and the selection process can reflect their characteristics, studies have suggested that consumers with a high level of product involvement will enjoy the product selection process (Bauer et al., 2006). In contrast, less involved consumers may have less patience with the selection process and make decisions based on the quick-catch (i.e., convenience) clues (Charters & Pettigrew, 2006; Traylor, 1981).

Place-based cognition is also essential for evaluating the experience and making decisions (Stedman, 2002). In other words, consumers may respond differently to the same product when it is sold in different places (i.e., channels or "where"; Mallapragada et al., 2016). Studies have suggested that consumers may have different preferences and varying levels of familiarity with the channels concerned, depending on their personalities and backgrounds (Xie et al., 2016). Thus, in addition to product involvement, Keaveney and Parthasarathy (2001) emphasized the importance of understanding consumers' channel involvement in the shopping decision-making process. Like product involvement, channel involvement describes individuals' perceived relevance of purchasing through a specific channel, such as online channels (Kim et al., 2007; Martín et al., 2011; Michaelidou & Dibb, 2008). Also, consumers enjoy the choice process in the high-involved channels, as they have the opportunity to leverage their knowledge. In low-involved channels, they engage less and prefer to make effortless decisions based on quick-catch clues (Hoyer, 1984; Yang et al., 2019).

In the context of booking green-label hotels on the OTA channel, consumer knowledge encompasses two distinct dimensions: knowledge of hotels as products, which underlies the green practices behind the green labels, and channel knowledge, which pertains to the certification process for such labels (e.g., TripAdvisor Green Leaders). These dimensions allow consumers to assess the meaningfulness of the labels. Based on the previous reasoning, high-involved consumers are likely to engage in a deliberative decision-making process that draws upon their knowledge of the relevant subject (e.g., product and channel), whereas low-involved consumers prefer to make effortless decisions.

Oshikawa (1969) emphasized that individuals will possess different cognitive elements regarding behavior (e.g., knowledge). According to cognitive dissonance theory (CDT), whenever there is an unresolved conflict among cognitive elements on a decision, individuals feel psychologically uncomfortable, also known as cognitive dissonance, and then try to avoid making such a decision (Bawa & Kansal, 2008; Festinger, 1957; Harmon-Jones & Mills, 2019). Thus, if the involvement of the OTA and the hotel is mismatched, it can lead to cognitive dissonance and

psychological discomfort. In other words, processing green labels as quick-catch clues effortlessly is likely to be disrupted by the needs produced from cognition of high involvement from another characteristic. In this case, consumers may feel discomfort about the decision-making process. As psychological discomfort inhibits the perception of psychological benefits (Donsbach, 2009; Wan & Li, 2021), the relationship between environmental concerns and perceived psychological benefits will be weakened and further decrease their willingness to pay a premium (i.e., decision).

In contrast, when one involvement is followed by another (i.e., both high and both low), consumers' perceptions of the psychological benefits of booking green-label hotels will not be disturbed. Specifically, when consumers exhibit low levels of involvement with both hotel and channel, consumers are satisfied with making effortless decisions based on quick-catch clues with less focus on the meaningfulness of green labels. Conversely, with high levels of involvement for both hotel and channel, consumers enjoy the deliberative decision-making processes that draw upon their knowledge, and make informed choices. Hence, the following hypotheses were proposed:

H₂: Consumers' environmental concerns, hotel involvement, and OTA involvement interact to affect their perceived psychological benefits of booking green-label hotels. Specifically, the mismatched levels of OTA and hotel involvement weaken the positive relationship between environmental concerns and the perceived psychological benefits of booking green-label hotels.

H₃: Consumers' environmental concerns, hotel involvement, and OTA involvement interact to indirectly affect their willingness to pay more for green-label hotels as a result of their perceived psychological benefits of green-label hotels through OTAs. Specifically, the mismatched levels of OTA and hotel involvement weaken the positive indirect relationship between environmental concerns and willingness to pay a premium for green-label hotels due to the perceived psychological benefits of booking green-label hotels.

Figure 1 depicts the proposed research model and hypotheses.

Methodology

Study Design and Instrument Development

A self-reported online survey was developed in English and translated into Chinese, following the instructions suggested by Hambleton (1993). Notably, the study was first translated from English to Chinese by a native Chinese translator who was proficient in both languages. Then a pilot test was conducted with 30 Chinese native speakers recruited through a snowball sampling to increase the readability and clarity of the survey. Minor adjustments to wording and grammar were

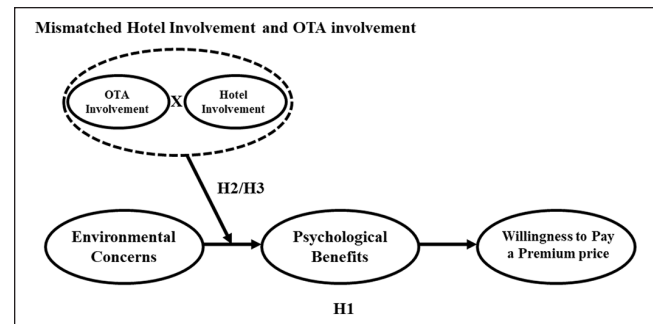


Figure 1. Proposed Research Model and Hypotheses.

applied. Then the Chinese survey was back-translated from Chinese to English by another native Chinese translator who was proficient in both languages. A native English speaker from a university writing center judged the translated survey by comparing it with the original survey and confirming the quality of the translation process.

In the survey, the participants were given a scenario where they wanted to find a hotel for an upcoming vacation with their family. While reviewing Ctrip.com (the largest OTA in China), they found some green-label hotels. Bearing the scenario in mind, the participants were then asked to answer questions concerning hotel involvement, OTA involvement, environmental concerns, the psychological benefits of booking green label-hotels, and willingness to pay 18% more for green-label hotels.

All measurement constructs were modified from previously examined scales and a 5-point Likert-type scale was employed, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Specifically, as shown in Table 1, hotel involvement (HI) was measured using four items adapted from Rahman's (2018) study. OTA involvement (OI) was measured using five items adapted from Keaveney and Parthasarathy's (2001) study. Environmental concern (EC) was measured using a scale with four items developed by Verma and colleagues (2019). The psychological benefits of booking green-label hotels (PB) were measured using the instrument with three items developed by Hwang and Choi (2018).

Upon reviewing studies on consumers' maximum willingness to pay for green hotels, literature shows that Asian consumers are likely to be willing to pay a relatively high price for green hotels. For example, a study conducted by Manaktola and Jauhari (2007) suggested that consumers from India would like to pay as much as 25% more for green hotels. Based on a report by the industry, Chou and Chen (2014) argued that environmentally conscious consumers would pay an additional 18% for green hotels in the Greater China region. Meanwhile, Gan and Nuli (2018) indicated that most consumers in Singapore would pay a maximum of 20% more for green hotels. In Korea, Ham and Han (2013) found that consumers may pay as much as 20% more for green hotels. These studies suggested that 18% to 25%

Table 1. CFA Results (N=540).

Construct	Item	Factor Loading	CR	α
OI	While I am planning the trip,		.84	.85
	I will review OTA websites.	.58		
	reviewing OTA websites is important to me.	.70		
	reviewing OTA websites will impact my decision.	.74		
	reviewing OTA websites means a lot to me.	.80		
	reviewing OTA websites is relevant to the quality of the travel experience.	.77		
HI	If I am planning the trip, which hotel to stay in (is)_____		.79	.79
	important to me.	.73		
	means a lot to me.	.78		
EC	relevant to the quality of the travel experience.	.75	.82	.81
	I believe:			
	the balance of nature is easily broken by humans.	.64		
	humans are seriously and wantonly misusing environmental resources.	.69		
	humans must maintain a balance with nature in order to survive.	.81		
PB	human destruction of nature often leads to disastrous consequences.	.76	.77	.77
	Through booking green hotels, I can			
	feel good because they help to protect the environment.	.74		
	feel I am contributing to the well-being of humanity and nature.	.74		
WTP	feel better because they do not harm the environment.	.68	.91	.91
	If green hotels are around 18% higher than normal hotels on room rate (e.g., RMB 1,180 versus RMB 1,000),			
	I am still willing to pay more for green hotels.	.85		
	it is acceptable to pay more for green hotels.	.94		
	I am still willing to spend extra in order to stay in the green hotels.	.87		

Note. OI= online travel agency involvement; HI= hotel involvement; PB= perceived benefit; EC=environmental concerns; WTP= willingness to pay more.

should be considered a reasonable maximum willingness to pay for green hotels in Asian countries. Thus, this study employed three items adapted from Hwang and Choi's (2018) research with appropriate modifications made to fit the lower limit of the range (i.e., 18%) to measure willingness to pay more for green label-hotels (WTP).

Additionally, demographic information (i.e., age, education level, and gender) and travel frequency data were collected. Qualification questions were applied to eliminate those who had never booked hotels by themselves in the past 3 years and those under 18 years old. Several screening strategies, such as attention-check questions (e.g., if you are reading this question, please select "agree") or repeated checks on age and year of birth, were utilized to increase data reliability.

Sampling and Data Collection

The study protocol was approved by the Institutional Review Board of a university located in a southern region of the United States. The target population of this study was general Chinese consumers over 18 years of age. The data collection was conducted in July 2021 through an online research panel organized by a third-party survey company owned by Tencent, one of the largest technology support companies in China.

A total of 644 responses were collected. After eliminating 104 disqualified responses (i.e., failed the screening or attention-check questions), the remaining 540 data were

used for further analysis. Most participants were females ($n=394$, 72.96%) and 18 to 25 years old ($n=399$, 73.89%). Most participants had an associate or bachelor's degree ($n=402$, 74.44%) and reported a monthly income range of above RMB 8,000 (equivalent to 1,100 USD; $n=269$, 49.81%). The participants were from 28 provinces in China. Guangdong ($n=110$, 20.37%), Jiangsu ($n=41$, 7.59%), Beijing ($n=37$, 6.85%), Shandong ($n=37$, 6.85%), and Zhejiang ($n=35$, 6.48%) were the top five provinces, which was similar to the distribution of domestic tourists in China before COVID-19 (Textor, 2021b).

Data Analysis

SPSS software was used for data cleaning and descriptive analysis (e.g., frequency, percentages, mean, and standard deviation [SD]). R-4.2.1 was used for hypotheses testing. Specifically, the Lavaan package (Version 0.6–5) was utilized to assess the measurement reliability and validity via confirmatory factor analysis (CFA) and explore the hypothesized conceptual model, including mediation relationship, via structural equation modeling (SEM) with the bootstrapping technique ($N=1,000$; Preacher & Hayes, 2008; Rosseel, 2012). The bruceR package was employed to examine the proposed moderation role of the mismatched levels of the hotel and OTA involvement (i.e., the conditional moderation effect; Bao, 2022).

Results

For the sake of brevity, in this section, abbreviations have been used for the following parameters: hotel involvement (HI), OTA involvement (OI), environmental concern (EC), psychological benefits of booking hotels with a green label (PB), and willingness to pay 18% more for green-label hotels (WTP).

Measurement Model

CFAs were performed in R-4.2.1 using the Lavaan package (Version 0.6-12; Rosseel, 2012). With a factor loading lower than .5, one item of the HI scale ("If I were booking a hotel, I would like to pay a higher price for a better hotel") was removed (Hair et al., 2013). After removing this item, the revised model demonstrated a good fit to data: $\chi^2(125)=477.00$, $p < .01$, comparative fit index (CFI) = .92, Tucker–Lewis index (TLI) = .91, root mean square error of approximation (RMSEA) = .07, and standardized root mean square residual (SRMR) = .05. The factor loadings for the included items are shown in Table 1. Moreover, Harman's one-factor test was utilized to test whether the common method variance (CMV) might be a potential concern (S. J. Chang et al., 2010; Harman, 1976). The result indicated that the one-factor model was significantly worse than the five-factor model ($\Delta\chi^2=2263.38$, $\Delta df=10$, $p < .01$), indicating that CMV should not be a concern in the current study.

The instrument reliability was tested by calculating composite reliability (CR) and Cronbach's alpha (α). CR ranged from .77 to .91, and α values ranged from .77 to .91, indicating acceptable internal consistencies of the measurements. The constructs' t -values of factor loadings were used to check the convergent validity, and all values were statistically significant. Hence, convergent validity was confirmed (Bagozzi & Yi, 1988). Additionally, a discriminant validity check was performed by comparing the squared pair-wise correlations among the constructs and the average variance extracted (AVE) values for each latent variable (Fornell & Larcker, 1981). As shown in Table 2, all AVE values were above 0.5 and greater than the squared correlations for each construct. Accordingly, the discriminant validity was confirmed.

Hypotheses Testing (Structural Model)

As shown in Table 2, income level and age were significantly correlated with PB and WTP, indicating the need to control these two variables in subsequent hypotheses testing (Spector & Brannick, 2011). Hypotheses were tested using the SEM model, conducted in R-4.2.1 with the Lavaan package (Version 0.6-12; Rosseel, 2012). The bootstrapping method was utilized to test mediating effects, with 5,000 resamples to obtain confidence interval estimates (Preacher & Hayes, 2008). The model exhibited adequate fit to data: $\chi^2(49)=179.34$, RMSEA = .07, CFI = .95,

Table 2. Correlation Coefficients Squared Pair-Wise Correlations and Variance Extracted Value.

	OI	HI	EC	PB	WTP
Gender	.04	.04	-.01	.04	-.06
Age	.10*	.20**	.08	.13**	.13**
Education	.07	.17**	.14**	.07	-.02
Income	.15**	.15**	.07	.14**	.01
OI	.53	.23	.07	.18	.06
HI	.48**	.56	.18	.13	.05
EC	.27**	.42**	.51	.28	.06
PB	.43**	.36**	.53**	.52	.24
WTP	.24**	.22**	.24**	.49**	.78

Note. Variance extracted values are bold, squared pair-wise correlations are italic.

OI= online travel agency involvement; HI= hotel involvement; PB= perceived benefit; EC=environmental concerns; WTP= willingness to pay more.

* $p < .05$. ** $p < .01$.

TLI = .93, SRMR = .04. The partial mediation model (a saturated model) was also tested, with the regression path from PB to WTP being added to the theoretical model. This model also demonstrated a good fit: $\chi^2(48)=179.09$, RMSEA = .07, CFI = .95, TLI = .93, SRMR = .04. However, compared to the hypothesized (full mediation) model, the model fit of the partial mediation model did not significantly increase ($\Delta df=1$, $\Delta\chi^2=.25$, $p=.62$). Hence, for the sake of parsimony, it is rational to keep the original model. The SEM results showed that EC was positively associated with PB (estimate = .52, $p < .01$), and PB was positively associated with WTP (estimate = .50, $p < .01$). Mediation analysis demonstrated that EC was positively related to WTP via PB (estimate = -.25, 95% CI [.24, .46]), supporting H_1 .

Moderation and mediated moderation analyses were conducted in R using the bruceR package (Bao, 2022). The normality of EC, HI, and OI was examined first. As all the statistical values of skewness and kurtosis were lower than 1, EC, HI, and OI were normally distributed (George & Mallery, 2012). Thus, EC, HI, and OI were centralized and included in the regression. As shown in Table 3, the effect of the three-way interaction on PB was significant (coefficient = .26, $p < .01$). (Aiken & West, 1991).

Simple slope tests were performed to compare the slope of the relationships between EC and PB among four conditions of the interaction between HI and OI (i.e., high OI and high HI, high OI and low HI, low OI and high HI, and low OI and low HI) at mean ± 1 SD (high and low levels) for HI, OI, and EC. As shown in Table 4, the relationship between EC and PB was not significant in the condition of low OI and high HI (simple slope = .15, $p=.13$). Although the simple slope in the condition of high OI and low HI (simple slope = .32, $p < .01$) was lower than that in the condition of high OI and high HI (simple slope = .45, $p < .01$) and the condition of low OI and low HI (simple slope = .44, $p < .01$), the simple slope differences were not statistically significant

Table 3. Model Summary for Moderation Analysis.

(Outcome: PB; N= 540)

Effect	Estimate	SE
Constant	3.95**	.03
EC	.34**	.05
OI	.22**	.05
HI	.05	.05
EC*OI	.07	.08
EC*HI	-.06	.07
OI*HI	-.07	.06
EC*HI*OI	.25**	.08
Income level	.05	.03
Age	.01	.01

Note. $\Delta R^2 = .0275$, $F(1, 556) = 8.582$.

** $p < .01$.

(difference = .13, $p = .27$; difference = -.12, $p = .26$). The results also indicated that there was no significant difference between the high OI and high HI condition and the low OI and low HI condition (difference = .01, $p = .93$). Hence, H_2 was partially supported.

Moreover, as shown in Table 4, the results of the conditional moderated mediation indicated that the mediation effect of the perceived benefit on the relationship between EC and WTP was not significant in the conditions of high HI and low OI (estimate = .15, 95% CI [-.02, .29]) and low HI and high OI (estimate = .07, 95% CI [-.04, .18]). In the conditions of high HI and high OI (estimate = .21, 95% CI [.10, .32]) and low HI and low OI (estimate = .21, 95% CI [.12, .31]), the mediation effect of PB on the relationship between EC and WTP was significant. Hence, H_3 was fully supported.

Discussion

The study aimed to identify the factors influencing consumers' willingness to pay a premium for green-label hotels, thus encouraging hoteliers to invest in green hotels and adopt green operations (Abidin & Powmya, 2014). Moving beyond previous research, with a measurable (18%) price premium, 540 valid responses revealed more nuanced relationships between environmental concerns, psychological benefits, and willingness to pay a premium for green-label hotels. The finding was consistent with social exchange theory; however, it may slightly differ from previous studies that suggested a direct relationship between environmental concerns and willingness to pay a premium (e.g., S. Kang & Nicholls, 2021; K. H. Kang et al., 2012; Nelson et al., 2021). In particular, the finding emphasizes the importance of monetary value in determining willingness to pay a premium. In the literature, the tendency to overestimate willingness to pay for green products is a pervasive bias caused by response bias, such as the social desirability bias (Frederick, 2012) and consensus bias (Bennett & Blaney, 2002). The bias may be

Table 4. Simple Slope Comparison and Conditional Indirect Effects of EC through PB on WTP.

	Simple Slope	SE	Indirect Effect	95% CI
High OI & High HI (1)	0.45**	0.09	.21	[.11, .32]
High OI & Low HI (2)	0.32**	0.10	.15	[-.02, .29]
Low OI & High HI (3)	0.15	0.10	.07	[-.04, .18]
Low OI & Low HI (4)	0.44**	0.09	.21	[.13, .31]

** $p < .01$.

particularly enhanced when a vague concept is used to describe "more" rather than providing a measurable value (i.e., an anchor) to justify the price increase since it may lessen the perceived pain associated with sacrifice. It has been argued that using a specific number to measure the premium may limit its generalizability, but, as a pioneer, it promotes the progress of the literature by providing different insights, and the result is more relevant to industry professionals.

Moreover, the study confirmed the inhibiting role of the psychological discomfort caused by the mismatch between the hotel involvement and OTA involvement on the relationship between environmental concerns and the perceived psychological benefits of booking green-label hotels on OTAs, further reducing consumers' willingness to pay a premium for green-label hotels. Specifically, consumers with low OTA (channel) involvement and high hotel (product) involvement perceived fewer benefits of booking green-label hotels that would meet their environmental concerns and were less willing to sacrifice for those hotels. For consumers with high OTA involvement and low hotel involvement, the indirect relationship between environmental concern and perceived benefits decreased significantly. The relationship between environmental concern and perceived benefits of booking green-label hotels was also reduced, but not statistically significantly. This is because the advantage of OTAs, such as easy comparison (Kim et al., 2020), may mask their discomfort. Still, the results suggested that they were less willing to sacrifice because of perceived benefits. The findings were consistent with CDT since consumers perceive psychological discomfort if they cannot have internal cognition agreement (i.e., self-consistent) on the purchase decision, which affects their benefit perceptions and sacrifice intentions. The findings were also aligned with the cognitive dissonance theory (Oshikawa, 1969) and demonstrated the importance of understanding the where and what of a purchase behavior (Mallapragada et al., 2016).

Theoretical Implications

This study makes important contributions to the hospitality management literature. First, the study responds to prior studies' suggestions and considers the role of environmental concerns when investigating consumers' green purchasing intentions (Han, 2021; Verma et al., 2019; Yadav et al.,

2019). Nevertheless, it is common that previous studies failed to describe the financial sacrifices of green hotel purchases in monetary value (i.e., provide an anchor to evaluate the extra cost) in measuring customers' willingness to pay more. By summarizing the literature in the region, this study applied 18% more as an anchor to measure the premium of green hotels (L. Li et al., 2021). The result slightly varies from previous studies as the study suggests that the relationship between environmental concerns and willingness to pay more is fully mediated by the perceived psychological benefits when green hotels are 18% more expensive. Since the study is grounded on social exchange theory, this finding is more precise and emphasizes the importance of the anchor in assessing willingness to pay a premium for green products.

Another takeaway from this study is that conflict between the hotel and OTA involvement may produce psychological discomfort with green label-based green purchase decisions, inhibiting the perceived benefits of such decisions. "What" (Product) and "Where" (Channel) are two main characteristics in describing purchasing behaviors (Mallapragada et al., 2016). Product involvement, such as hotel involvement and wine involvement, has been a widely studied construct in the hospitality literature (Rahman, 2018). Nevertheless, the influence of channel involvement on consumer decision-making has received inadequate attention. Especially, the interaction between channel involvement and product involvement is unexplored. While it is important to use caution when generalizing the findings of this study to other product categories (e.g., restaurants and cruises) or distribution channels (e.g., official websites and emerging channels), the present investigation underscores the need for future research to examine the impact of channel involvement on consumer purchasing behavior.

Furthermore, cognitive dissonance theory has been recognized as the main factor that impacts consumers' choice-process satisfaction in online retailing, and triggers their unexpected behaviors, such as shopping cart abandonment (Huang et al., 2018). This study proposed another condition that would reduce consumer choice-process satisfaction. The findings indicated that the conflict between hotel involvement and OTA involvement would produce psychological discomfort toward booking green-label hotels on OTAs, resulting in a reduced willingness to pay a premium. The study provides some significant implications of cognitive dissonance theory in choice-process satisfaction in the hospitality literature.

Practical Implications

The findings of this study also provide important practical implications for green hotel marketing. First, this study offers empirical evidence that perceived psychological benefits fully mediated the relationship between consumers' environmental concerns and their willingness to pay more for green hotels. This finding suggests that, if marketing managers of

green hotels could apply strategies to enhance consumers' perceived psychological benefits of booking green hotels, they could gain higher revenue through a premium price. According to previous studies, "warm glow," self-expressive benefits, and nature experiences, are consumers' common psychological needs in green purchasing (Hartmann & Apaolaza-Ibáñez, 2012). Hence, green hotel's online marketing strategies should focus on satisfying these needs. Specifically, many studies have suggested using advertising messages to stress how the community might appreciate a consumer's environmental contribution and how others might be proud of their green behaviors, triggering their reception of gratitude (e.g., Liao et al., 2020; Spielmann, 2021). Furthermore, as mismatched involvements may weaken the relationship between environmental concerns and perceived psychological benefits, the amplification of psychological benefits from supplementary sources may serve to counterbalance this negative effect. For instance, Chipotle's recent advertisement "Can a Burrito Change the World?" revealed how a purchase from Chipotle could help reverse the crisis in the agricultural industry (Creative Digital Agency, 2021). Another intelligent strategy is to manifest the social status of individuals who prefer green hotels, known as conspicuous conservation (Caniëls et al., 2021). Some examples include uniquely designed airport shuttles and souvenirs. This approach may be particularly effective when marketing novel channels, such as Metaverse.

Although the importance of channels has received much attention in hospitality revenue management, the joint influence of product involvement and channel involvement has not received adequate attention. Hotels today apply green labels on OTA platforms, such as TripAdvisor, as quick-catch clues for consumers to identify green hotels easily and thus gain marketing advantages, such as premium prices (Costa et al., 2018; Guo et al., 2020). However, the findings of this study revealed that this strategy is risky and counterproductive. Particularly, those with high involvement in hotels and low involvement in OTA channels (or high involvement in channels but low involvement in hotels) will be drawn to the green labels because of their low involvement characteristics (either hotel or channel). Despite their high involvement characteristics, they feel psychologically uncomfortable about the decision made based on the quick-catch clues. Today, if consumers want to know the detailed meaning of green labels, they have to jump to another page in most cases. Therefore, to satisfy customers' different needs, hotels should provide easy access to their green practices' details in the screening process (Hu & Yang, 2020). For example, website designers might add a tooltip (e.g., when hovering over the green label, the text box displaying details of the green practices will appear), or hotel marketing managers might highlight the green practice in their featured images. In this case, even if the decision was made based on quick-catch clues, consumers could be satisfied with easy access to green practice details.

Limitations and Future Research

Although the present study has generated several contributions to the literature and hotel practitioners, it is not free of limitations. First, the results focused on Chinese consumers, and most respondents were female. Thus, the generalization of the results should be approached cautiously. Second, the results only reflected Chinese consumers' tolerance for paying 18% more for green hotels. According to the anchoring effect, a lower anchor point (i.e., a bigger price gap) may decrease the willingness to pay a premium, and a higher anchor point may increase the willingness to pay a premium (Tanford et al., 2019). Thus, future research may compare the moderation role of different price gaps. Third, the study only examined lodging products (i.e., hotels) and the OTA channel. Although, as a pioneer, this study offers new insights into—and a better understanding of—the concept and functionality of consumer involvement, further research is necessary to examine whether the findings can be applied to other hospitality products and other channels. Fourth, the current study's design focused solely on the results of the general search engine, neglecting the effects of advanced functions, such as filtering and sorting. Loosschilder and colleagues (2017) indicated that these advanced functions on OTA platforms could influence users' hotel selection by suggesting choices that tailor to their needs and wants. Although green practices are not part of the criteria for sorting or filtering functions in prominent OTAs like Ctrip or Expedia, the escalating demand for environmentally sustainable practices may necessitate their inclusion. Consequently, additional research should be conducted to validate the potential impact of this practice on consumer decision-making and assess the feasibility of implementing such functions. Fifth, the cognitive dissonance assumption of this study was developed based on CDT; therefore, future research may apply experimental design to confirm the causation. Last, previous studies have suggested that factors such as green knowledge and peer pressure may also impact the willingness to pay a premium for green hotels (Mei et al., 2012). Future studies could expand the scope by incorporating these variables.

Conclusion

This study contributes to the existing literature on green hotel marketing by emphasizing the importance of the anchor in measuring willingness to pay a premium. It also extends the understanding of the impact of cognitive dissonance on consumers' decision-making processes. The hypothesis model was examined using panel data collected in China. The results show that the relationship between consumers' environmental concerns and willingness to pay a premium for green-label hotels is fully mediated by their perceived psychological benefits. The conflict between the hotel and OTA involvement further inhibits the relationship. Results should be interpreted with caution regarding hotels

booked through OTA channels and an extra 18% charge as an anchor for extra costs associated with green-label hotels.

After taking into consideration the limitation of this study focusing only on Chinese consumers, hoteliers could also benefit from our findings. In particular, while marketing green hotels, managers should implement strategies that could provide consumers with additional resources to perceive psychological benefits (e.g., the warmth of giving, gratitude, and social identity) from green purchasing. The study also highlights the importance of providing easily accessible information to support the use of quick cues, such as green labels, to make a decision.

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References

- Aaker, J. L. (1999). The malleable self: The role of self-expression in persuasion. *Journal of Marketing Research*, 36(1), 45–57. <https://doi.org/10.2307/3151914>
- Abidin, N. Z., & Powmya, A. (2014). Perceptions on motivating factors and future prospects of green construction in Oman. *Journal of Sustainable Development*, 7(5), 231–239. <https://doi.org/10.5539/jsd.v7n5p231>
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Sage.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Andreoni, J. (1990). Impure altruism and donations to public goods: A theory of warm-glow giving. *The Economic Journal*, 100(401), 464–477. <https://doi.org/10.2307/2234133>
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94. <https://doi.org/10.1007/BF02723327>
- Bao, H. (2022). *bruceR: Broadly useful convenient and efficient R functions*. <https://CRAN.R-project.org/package=bruceR>
- Bauer, H. H., Sauer, N. E., & Becker, C. (2006). Investigating the relationship between product involvement and consumer decision-making styles. *Journal of Consumer Behaviour*, 5(4), 342–354. <https://doi.org/10.1002/cb.185>
- Bawa, A., & Kansal, P. (2008). Cognitive dissonance and the marketing of services: Some Issues. *Journal of Services Research*, 8(2), 31–51.
- Bennett, R., & Blaney, R. (2002). Social consensus, moral intensity and willingness to pay to address a farm animal welfare issue.

- Journal of Economic Psychology*, 23(4), 501–520. [https://doi.org/10.1016/S0167-4870\(02\)00098-3](https://doi.org/10.1016/S0167-4870(02)00098-3)
- Brown, G. P., Havitz, M. E., & Getz, D. (2007). Relationship between wine involvement and wine-related travel. *Journal of Travel & Tourism Marketing*, 21(1), 31–46. https://doi.org/10.1300/J073v21n01_03
- Caniëls, M. C. J., Lambrechts, W., Platje, J. J., Motylska-Kuźma, A., & Fortuński, B. (2021). Impressing my friends: The role of social value in green purchasing attitude for youthful consumers. *Journal of Cleaner Production*, 303, Article 126993. <https://doi.org/10.1016/j.jclepro.2021.126993>
- Castro, P. (2006). Applying social psychology to the study of environmental concern and environmental worldviews: Contributions from the social representations approach. *Journal of Community & Applied Social Psychology*, 16(4), 247–266. <https://doi.org/10.1002/casp.864>
- Chang, H. H., & Chuang, S. S. (2011). Social capital and individual motivations on knowledge sharing: Participant involvement as a moderator. *Information & Management*, 48(1), 9–18. <https://doi.org/10.1016/j.im.2010.11.001>
- Chang, S. J., Van Witteloostuijn, A., & Eden, L. (2010). From the editors: Common method variance in international business research. *Journal of International Business Studies*, 41(2), 178–184. https://doi.org/10.1007/978-3-030-22113-3_20
- Charters, S., & Pettigrew, S. (2006). Product involvement and the evaluation of wine quality. *Qualitative Market Research*, 9(2), 181–193. <https://doi.org/10.1108/13522750610658810>
- Chou, C. J., & Chen, P. 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>
- Costa, O., Fuerst, F., Robinson, S. J., & Mendes-Da-Silva, W. (2018). Green label signals in an emerging real estate market. A case study of Sao Paulo, Brazil. *Journal of Cleaner Production*, 184, 660–670. <https://doi.org/10.1016/j.jclepro.2018.02.281>
- Cox, D. (2009). Predicting consumption, wine involvement and perceived quality of Australian red wine. *Journal of Wine Research*, 20(3), 209–229. <https://doi.org/10.1080/09571260903450963>
- Creative Digital Agency. (2021, March 17). *The best “green” ad campaigns of 2020?* <https://www.creativedigitalagency.com/post/our-favorite-green-ad-campaigns>
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874–900. <https://doi.org/10.1177/0149206305279602>
- Dhar, R., & Wertenbroch, K. (2012). Self-signaling and the costs and benefits of temptation in consumer choice. *Journal of Marketing Research*, 49(1), 15–25. <https://doi.org/10.1509/jmr.10.0490>
- Donsbach, W. (2009). Cognitive dissonance theory—A roller coaster career: How communication research adapted the theory of cognitive dissonance. In T. Hartmann (Ed.), *Media choice: A theoretical and empirical overview* (pp. 128–149). Taylor & Francis.
- Festinger, L. (1957). *A theory of cognitive dissonance* (Vol.2). Stanford University Press.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382–388. <https://doi.org/10.2307/3150980>
- Frederick, S. (2012). Overestimating others’ willingness to pay. *Journal of Consumer Research*, 39(1), 1–21. <https://doi.org/10.1086/662060>
- Gan, J. E., & Nuli, S. (2018). Millennials’ environmental awareness, price sensitivity and willingness to pay for Green Hotels. *Journal of Tourism, Hospitality and Culinary Arts*, 10(2), 47–62.
- George, D., & Mallery, P. (2012). *IBM SPSS statistics 19 step by step*. Pearson.
- Guo, X., Cheng, L., & Liu, J. (2020). Green supply chain contracts with eco-labels issued by the sales platform: Profitability and environmental implications. *International Journal of Production Research*, 58(5), 1485–1504. <https://doi.org/10.1080/00207543.2019.1658911>
- Gutman, J. (1982). A means-end chain model based on consumer categorization processes. *Journal of Marketing*, 46(2), 60–72. <https://doi.org/10.2307/3203341>
- Hair, J. F., Babin, B. J., Black, W. C., & Anderson, R. E. (2013). *Multivariate data analysis* (7th ed.). Pearson Education Limited.
- 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>
- Hambleton, R. K. (1993). Translating achievement tests for use in cross-national studies. *European Journal of Psychological Assessment*, 9(1), 57–68.
- 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>
- Harman, H. H. (1976). *Modern factor analysis* (3rd ed.). The University of Chicago Press.
- Harmon-Jones, E., & Mills, J. (2019). An introduction to cognitive dissonance theory and an overview of current perspectives on the theory. In E. Harmon-Jones (Ed.), *Cognitive dissonance: Reexamining a pivotal theory in psychology* (pp. 3–24). American Psychological Association. <https://doi.org/10.1037/0000135-001>
- Hartmann, P., & Apaolaza-Ibañez, V. (2012). Consumer attitude and purchase intention toward green energy brands: The roles of psychological benefits and environmental concern. *Journal of Business Research*, 65(9), 1254–1263. <https://doi.org/10.1016/j.jbusres.2011.11.001>
- Hawkins, S. A., & Hoch, S. J. (1992). Low-involvement learning: Memory without evaluation. *Journal of Consumer Research*, 19(2), 212–225. <https://doi.org/10.1086/209297>
- Hoyer, W. D. (1984). An examination of consumer decision making for a common repeat purchase product. *Journal of Consumer Research*, 11(3), 822–829. <https://doi.org/10.1086/209017>
- Hu, X. S., & Yang, Y. (2020). Determinants of consumers’ choices in hotel online searches: A comparison of consideration and booking stages. *International Journal of Hospitality Management*, 86, Article 102370. <https://doi.org/10.1016/j.ijhm.2019.102370>
- Huang, G. H., Korfiatis, N., & Chang, C. T. (2018). Mobile shopping cart abandonment: The roles of conflicts, ambivalence, and hesitation. *Journal of Business Research*, 85, 165–174. <https://doi.org/10.1016/j.jbusres.2017.12.008>

- Hwang, J., & Choi, J. K. (2018). An investigation of passengers' psychological benefits from green brands in an environmentally friendly airline context: The moderating role of gender. *Sustainability*, 10(1), 80. <https://doi.org/10.3390/su10010080>
- Jiang, Y., & Kim, Y. (2015). Developing multi-dimensional green value: Extending social exchange theory to explore customers' purchase intention in green hotels—evidence from Korea. *International Journal of Contemporary Hospitality Management*, 27(2), 308–334. <https://doi.org/10.1108/IJCHM-08-2013-0383>
- Kahneman, D., & Knetsch, J. L. (1992). Valuing public goods: The purchase of moral satisfaction. *Journal of Environmental Economics and Management*, 22(1), 57–70. [https://doi.org/10.1016/0095-0696\(92\)90019-S](https://doi.org/10.1016/0095-0696(92)90019-S)
- 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>
- Kang, S., & Nicholls, S. (2021). Determinants of willingness to pay to stay at a green lodging facility. *International Journal of Hospitality Management*, 94, Article 102834. <https://doi.org/10.1016/j.ijhm.2020.102834>
- Keaveney, S. M., & Parthasarathy, M. (2001). Customer switching behavior in online services: An exploratory study of the role of selected attitudinal, behavioral, and demographic factors. *Journal of the Academy of Marketing Science*, 29(4), 374–390. <https://doi.org/10.1177/03079450094225>
- Kim, J., Fiore, A. M., & Lee, H. H. (2007). Influences of online store perception, shopping enjoyment, and shopping involvement on consumer patronage behavior towards an online retailer. *Journal of Retailing and Consumer Services*, 14(2), 95–107. <https://doi.org/10.1016/j.jretconser.2006.05.001>
- Kim, J., Franklin, D., Phillips, M., & Hwang, E. (2020). Online travel agency price presentation: examining the influence of price dispersion on travelers' hotel preference. *Journal of Travel Research*, 59(4), 704–721. <https://doi.org/10.1177/0047287519857159>
- 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>
- Li, L., Li, J., Tang, L., & Wang, S. (2019). Balancing tourism's economic benefit and CO2 emissions: An insight from input–output and tourism satellite account analysis. *Sustainability*, 11(4), Article 1052. <https://doi.org/10.3390/su11041052>
- Li, L., Maniadis, Z., & Sedikides, C. (2021). Anchoring in economics: A meta-analysis of studies on willingness-to-pay and willingness-to-accept. *Journal of Behavioral and Experimental Economics*, 90, Article 101629, 213–236. <https://doi.org/10.1016/j.socec.2020.101629>
- Li, Q., Long, R., & Chen, H. (2018). Differences and influencing factors for Chinese urban resident willingness to pay for green housings: Evidence from five first-tier cities in China. *Applied Energy*, 229, 299–313. <https://doi.org/10.1016/j.apenergy.2018.07.118>
- Liao, X., Shen, S. V., & Shi, X. (2020). The effects of behavioral intention on the choice to purchase energy-saving appliances in China: The role of environmental attitude, concern, and perceived psychological benefits in shaping intention. *Energy Efficiency*, 13(1), 33–49. <https://doi.org/10.1007/s12053-019-09828-5>
- Liu, K. N., & Hu, C. (2021). Critical success factors of green hotel investment in Taiwan. *International Journal of Contemporary Hospitality Management*, 34(3), 951–971. <https://doi.org/10.1108/IJCHM-03-2021-0368>
- Loosschilder, G., van der Rest, J. P. I., Schwartz, Z., Cordella, P., & Sierag, D. (2017). From OTA interface design to hotels' revenues: The impact of sorting and filtering functionalities on consumer choices. *Journal of Revenue and Pricing Management*, 16, 125–138. <https://doi.org/10.1057/s41272-016-0074-9>
- Mallapragada, G., Chandukala, S. R., & Liu, Q. (2016). Exploring the effects of “What” (product) and “Where” (website) characteristics on online shopping behavior. *Journal of Marketing*, 80(2), 21–38. <https://doi.org/10.1509/jm.15.0138>
- 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>
- Martín, S. S., Camarero, C., & José, R. S. (2011). Does involvement matter in online shopping satisfaction and trust? *Psychology & Marketing*, 28(2), 145–167. <https://doi.org/10.1002/mar.20384>
- Mei, O. J., Ling, K. C., & Piew, T. H. (2012). The antecedents of green purchase intention among Malaysian consumers. *Asian Social Science*, 8(13), 248. <https://doi.org/10.5539/ass.v8n13p248>
- Michaelidou, N., & Dibb, S. (2008). Consumer involvement: A new perspective. *The Marketing Review*, 8(1), 83–99. <https://doi.org/10.1362/146934708X290403>
- Nelson, K. M., Partelow, S., Stähler, M., Graci, S., & Fujitani, M. (2021). Tourist willingness to pay for local green hotel certification. *PLoS One*, 16(2), e0245953. <https://doi.org/10.1371/journal.pone.0245953>
- Oshikawa, S. (1969). Can cognitive dissonance theory explain consumer behavior? *Journal of Marketing*, 33(4), 44–49. <https://doi.org/10.2307/1248672>
- Peattie, K. (2001). Golden goose or wild goose? The hunt for the green consumer. *Business Strategy and the Environment*, 10(4), 187–199. <https://doi.org/10.1002/bse.292>
- Petty, R. E., Cacioppo, J. T., & Goldman, R. (1981). Personal involvement as a determinant of argument-based persuasion. *Journal of Personality and Social Psychology*, 41(5), 847–855. <https://doi.org/10.1037/0022-3514.41.5.847>
- Poiesz, T. B., & de Bont, C. (1995). Do we need involvement to understand consumer behavior? *ACR North American Advances*, 22, 448–452.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. <https://doi.org/10.3758/BRM.40.3.879>
- Rah, H. (2019). The hotel sector can profitably embrace sustainable development. *Development Magazine*. NAIOP. <https://www.naiop.org/research-and-publications/magazine/2019/summer-2019/development-ownership/the-hotel-sector-can-profitably-embrace-sustainable-development/>
- Rahman, I. (2018). The interplay of product involvement and sustainable consumption: An empirical analysis of behavioral intentions related to green hotels, organic wines and green

- cars. *Sustainable Development*, 26(4), 399–414. <https://doi.org/10.1002/sd.1713>
- Rahman, I., & Reynolds, D. (2016). Predicting green hotel behavioral intentions using a theory of environmental commitment and sacrifice for the environment. *International Journal of Hospitality Management*, 52, 107–116. <https://doi.org/10.1016/j.ijhm.2015.09.007>
- Rahman, I., & Reynolds, D. (2019). The influence of values and attitudes on green consumer behavior: A conceptual model of green hotel patronage. *International Journal of Hospitality & Tourism Administration*, 20(1), 47–74. <https://doi.org/10.1080/15256480.2017.1359729>
- Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2), 1–36. <https://doi.org/10.18637/jss.v048.i02>
- Simonson, I., & Drolet, A. (2004). Anchoring effects on consumers' willingness-to-pay and willingness-to-accept. *Journal of Consumer Research*, 31(3), 681–690. <https://doi.org/10.1086/425103>
- Spector, P. E., & Brannick, M. T. (2011). Methodological urban legends: The misuse of statistical control variables. *Organizational Research Methods*, 14(2), 287–305. <https://doi.org/10.1177/1094428110369842>
- Spielmann, N. (2021). Green is the new white: How virtue motivates green product purchase. *Journal of Business Ethics*, 173(4), 759–776. <https://doi.org/10.1007/s10551-020-04493-6>
- Stedman, R. C. (2002). Toward a social psychology of place: Predicting behavior from place-based cognitions, attitude, and identity. *Environment and Behavior*, 34(5), 561–581. <https://doi.org/10.1177/0013916502034005001>
- Suki, N. M. (2016). Consumer environmental concern and green product purchase in Malaysia: Structural effects of consumption values. *Journal of Cleaner Production*, 132, 204–214. <https://doi.org/10.1016/j.jclepro.2015.09.087>
- Tanford, S., Choi, C., & Joe, S. J. (2019). The influence of pricing strategies on willingness to pay for accommodations: Anchoring, framing, and metric compatibility. *Journal of Travel Research*, 58(6), 932–944. <https://doi.org/10.1177/0047287518793037>
- Textor, M. (2021a). *Growth of travel and tourism industry's contribution to GDP in China from 2010 to 2020*. Statista. <https://www.statista.com/statistics/249780/growth-of-travel-and-tourism-industrys-direct-contribution-to-gdp-in-china/>
- Textor, M. (2021b). *Distribution of domestic tourists in China in 2018, by region of origin*. <https://www.statista.com/statistics/976949/china-share-of-domestic-tourists-by-region-of-origin/>
- Traylor, M. B. (1981). Product involvement and brand commitment. *Journal of Advertising Research*, 21(6), 51–56.
- United States Green Building Council. (2022). *LEED project profiles*. <https://www.usgbc.org/projects>
- Verma, V. K., Chandra, B., & Kumar, S. (2019). Values and ascribed responsibility to predict consumers' attitude and concern towards green hotel visit intention. *Journal of Business Research*, 96, 206–216. <https://doi.org/10.1016/j.jbusres.2018.11.021>
- Vinzenz, F., Priskin, J., Wirth, W., Ponnappureddy, S., & Ohnmacht, T. (2019). Marketing sustainable tourism: The role of value orientation, well-being and credibility. *Journal of Sustainable Tourism*, 27(11), 1663–1685. <https://doi.org/10.1080/09669582.2019.1650750>
- Wan, W., & Li, H. (2021). Power drives consumer voice behavior. *Journal of Contemporary Marketing Science*, 4(1), 22–43. <https://doi.org/10.1108/JCMARS-09-2020-0039>
- Wang, J., Wang, S., Xue, H., Wang, Y., & Li, J. (2018). Green image and consumers' word-of-mouth intention in the green hotel industry: The moderating effect of Millennials. *Journal of Cleaner Production*, 181, 426–436. <https://doi.org/10.1016/j.jclepro.2018.01.250>
- Xie, X., Verma, R., & Anderson, C. K. (2016). Demand growth in services: A discrete choice analysis of customer preferences and online selling. *Decision Sciences*, 47(3), 473–491. <https://doi.org/10.1111/deci.12177>
- Yadav, R., Balaji, M. S., & Jebarajakirthy, C. (2019). How psychological and contextual factors contribute to travelers' propensity to choose green hotels? *International Journal of Hospitality Management*, 77, 385–395. <https://doi.org/10.1016/j.ijhm.2018.08.002>
- Yang, K., Min, J. H., & Garza-Baker, K. (2019). Post-stay email marketing implications for the hotel industry: Role of email features, attitude, revisit intention and leisure involvement level. *Journal of Vacation Marketing*, 25(4), 405–417. <https://doi.org/10.1177/1356766718814081>
- Younis, J. (2019, April 28). LEED ROI: What is the return on investment of LEED certified buildings? *Sight, Sustainability*. ALPIN. <https://www.alpinme.com/leed-roi-what-is-the-return-on-investment-of-leed-certified-buildings/>
- Zou, Y., Wang, X., Liu, Y., & Zheng, H. (2021). *2021 Green hotel development in China*. China Hospitality Association.

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