

Tourists' environmental behavior and intention to stay at green hotels in the social media context

Le Van Huy¹, Hoang Long Phan², Quyen Phu Thi Phan^{2*}, Tan Nhat Pham^{3,4},
and Nguyen Huu Thai Thinh⁵

¹TRT for Business Intelligence, University of Economics-The University of Danang, Vietnam

² University of Economics, The University of Danang, Vietnam

³ International University, Ho Chi Minh City, Vietnam

⁴ Vietnam National University, Ho Chi Minh City, Vietnam

⁵ University of Khanh Hoa, Khanh Hoa City, Vietnam

* Corresponding author: phuquyen@due.edu.vn

Abstract

This study focuses on analyzing the impact of tourists' environmental behavior on tourists' intentions to stay at green hotels. Specifically, the study examines the inter-relationship between the inter-personal factors – including connectedness to nature, environmental concern, and environmental activities – and tourists' intentions to stay in green hotels. The study also explores the context factor of hedonic value when using social media as a moderator of these impacts. Survey data were collected from 600 tourists in Vietnam and structural equation modeling (SEM) was performed to test the research model. The results show that customers' environmental concern and environmental activities both play mediating role in the relationship between connectedness to nature and intention to stay at green hotels. In addition, hedonic value when using social media moderates the relationship between environmental concern and environmental activities on intention to stay at green hotels, but not the direct relationship between connectedness to nature and intention to stay at green hotels. These findings have important implications for policies on promoting green hotel behaviors.

Keywords: Hedonistic Value, Connectedness to Nature, Environmental Concern, Intention to Stay, Green Hotel, Social Media

Introduction

Tourism is one of the most important sectors of the global economy, contributing significantly to the world's GDP (Gamage et al., 2020) and is an effective tool to promote economic growth in many countries. Within the sector, the hotel industry is one of the biggest employment and economic value creating drivers (World Tourism Organization, 2020). However, there are environmental issues facing the hotel industry. The industry consumes a lot of natural resources (World Tourism Organization, 2020; Al-Aomar and Hussain, 2017), emits much CO₂ (UNWTO, 2022), pollutes the environment, and harms natural habitat (Nicolae and Sabina, 2012). As a result, green hotels, i.e. environmentally friendly hotels, have become increasingly popular (Fauzi et al., 2022) and more travelers now have the intention to stay at green hotels (Fauzi et al., 2022; Wang et al., 2021).

The extant literature has indicated several predictors of customers' intention to stay at green hotels (hereafter ISGH). A number of research pointed out internal factors that influence ISGH, including connectedness to nature, personality, environmental concern, and attitude (Sulphey and Faisal, 2021, Park and Lin, 2020; Martin et al., 2020; Felix et al., 2018), while others identified external factors including environment problems or norms (Mark and Law, 2015; Han et al., 2010). Indeed, several studies have argued that the motivational pre-requisite of feeling connected to nature is important for consumers' participation in pro-environmental behavior (Richardson et al., 2020). However, research on the inter-relationship between internal factors and ISGH is limited. Based on the Theory of planned behavior (TPB) and Norm activation theory, this study fills the literature gap by examining the mediating role of environmental concern and environmental activities on the relationship between nature connectedness and ISGH.

Moreover, almost all customers nowadays use social media to search for information, be it about the environment or about the hotels. Particularly, when customers derive happiness (i.e. hedonic value) from using social media, their positive behavior can be stimulated, affecting their purchase intention (Lu and Hsiao, 2010). Guest exposes different respond in the different referents and contexts (Chomvilailuk and Butcher, 2023). Several hospitality studies have attempted to examine the role of guest engagement in green activities on social media platforms. However, there is a lack of salient studies on customer engagement for the hedonic context of ISGH. Dolnicar et al. (2017) suggested that further studies should investigate the self-oriented benefits of hedonic value to guests. Thus, this study also examines the contextual factor of hedonic value as a moderator in the relationships between personal green factors and ISGH.

Overall, our research contributes to the existing literature by examining the inter-relationship between tourists' internal factors (environmental concern, environmental activities, and connectedness to nature) and their intention to stay at green hotels and the moderating role of social media users' hedonic value. Moreover, most of the previous research on ISGH was developed and tested in the context of Western countries (Wang and Wong, 2020). Our study focuses on Vietnam, an up-coming travel destination in Asia, where the number of recognized green hotels is growing. This can provide the literature with a distinct perspective on the topic.

The paper is organized as follows. First, relevant literature is reviewed and appropriate hypotheses are proposed. Next, research methodology and results are presented. After

discussions, theory contributions and practical implications of these findings on Asian market are explained.

Literature Review

Theoretical Background

The Theory of planned behavior (TPB) was first introduced by Ajzen (1985) to overcome limitations in explaining behaviors that are out of control or when individuals do not have full control over the situation. According to the TPB, behavioral intention is not only affected by attitudes and subjective norms but also by perceived behavioral control. Previous studies have employed the TPB and its extended version to explore the main predictors of customers' intention to stay at green hotels (Fauzi et al., 2022; Wang et al., 2021; Ahn and Kwon, 2020; Chen and Tung, 2014). For example, Chen and Tung (2014)'s extended TPB model includes environmental concerns and perceived moral obligations. Fauzi et al. (2022) integrate the TPB and the Norm activation theory to develop their model. Some other studies have shown that the psychological characteristics of consumers (such as environmental concerns, environmental knowledge, environmental awareness, environmental activities...) affect green behavioral intentions (Wang and Wong, 2020; Bashir et al., 2019; Han et al., 2019; Han et al., 2010). Although a variety of studies use different theories to understand green consumers' behavior, there is a need for a comprehensive theory to predicting customers' buying behavior for green hotels (Han, 2020). Notably, an integrative theoretical model based on the Norm activation model and the TPB has attracted the attention of several scholars in green consumer behavior. For instance, Meng et al. (2020) have adopted the two theories to investigate travelers' re-participation intention to volunteer tourism. Park and Ha (2014) also used this combination for examining consumer recycling intention. Following these studies, our research adopts the two theories to examine green factors influencing tourists' behavioral intention toward green hotels.

Norm activation theory includes awareness of consequences, accountability, and personal norms as components that influence prosocial behavior for the environment (Schwartz, 1977). The behavior of individuals in daily life includes consumption activities that cause a lot of harm to the environment, and they can practice environmentally friendly behaviors to reduce harm (Rosenthal and Ho, 2020). Norm activation theory is the main theory considering environmental related factors affecting the intention to stay at green hotels. According to Rosenthal and Ho (2020), Norm activation theory refers to a progressive process in which the perception of consequences along with the attribution of responsibility are viewed as antecedents that directly elicit personal norms, leading to a certain environmental protection behavior. Fujii (2006) proposed that environmental concern creates a sense of responsibility for performing a behavior, which in turn activates a personal norm or moral obligation to perform that behavior. Therefore, in the vein of this theory, an individual's connection to nature, interest in the natural environment, and active participation in environmentally friendly behaviors are a useful predictor of behavior environmentally conscious (Hou and Wu, 2021; Rahman and Reynolds, 2016; Han et al., 2010).

The TPB and Norm activation theory are used in this study because these theories have

been shown to provide good explanations of consumer behavioral intention. The integration of TPB and Norm activation theory will provide the theoretical foundation from the perspective of the individual's planned behavior with added elements from psychology and cognition related to the environment. Therefore, this study suggests that two theories will predict the basic factors that determine consumers' intention to stay at green hotels on an eco-friendly basis.

Hypothesis Development

Green hotels are accommodation establishments that engage in environmentally friendly activities to protect natural resources, reduce waste and recycle materials (Green Hotel Association, 2021; Rahman and Reynolds, 2016). Intention refers to the level of conscious effort that the individual will make in approving his or her behavior. It is an indicator of people's willingness to approach certain behavior and how much effort they are trying to perform the given behavior (Ajzen, 1991). Intention to stay at a green hotel refers to the willingness and ability of customers to choose a green hotel to stay in their travel (Han et al., 2010). In the context of green hotel stay, behavior and intention are originated from the relationship between people and the environment under psychological attachment and towards nature (Rahman and Reynolds, 2016).

In particular, environmental concern reflects one's perception of environmental issues (Hou and Wu, 2021). Environmental concern influences the intention to support the environment by choosing ecological products and willing to pay higher than conventional products that are not environmental- (Holmgren et al., 2017). In addition, Felix et al. (2018) asserted that environmental concern is a factor influencing pro-environmental behavior, green motivation, and sustainable consumer behavior. Previous studies on green hotels show that environmentally conscious consumers are more cautious about how businesses or hotel managers engage in green practices (Choi et al., 2015). According to Hou and Wu (2021), consumers who are more concerned about the environment are more likely to consume green products. In a same vein, Sultana et al. (2022) empirically demonstrated that environmental concern has positive impacts on customers' green hotel visit intention. Therefore, environmental concern is an important factor determining the behavior of tourists towards staying at green hotels.

H1 Environmental concern positively influences intention to stay at green hotels.

Connectedness to nature is defined as a measure of a person's emotional connection with nature (Mayer and Frantz, 2004). Greater connection with the nature can lead to people seeking more contact with nature (Martin et al., 2020). Engagement with nature has been indicated to play a role in predicting pro-environmental behavior (Richardson et al., 2020). In the context of green hotel, based on the TPB, Sinnappan et al. (2023) found the relationship between environment concern, nature connectedness and green purchase intention. According to Rahman and Reynolds (2016), customer commitment to the environment increases when they feel psychologically connected and familiar with nature. We propose that consumers who are more connected to nature may be more interested in green hotel's services due to the presence of their environmental concern. In other words, a high level of environmental concern can make consumers feel more connected to nature and can bring about ISGH. Hence, the proposed hypotheses are:

H2 Nature connectedness positively influences intention to stay at green hotels.

H3 Environmental concern mediates the relationship between connectedness to nature and intention to stay at green hotels

People have become aware of the fragility of the environment and the need to conserve natural resources. Therefore, more and more individuals care about the environment and engage in environmentally friendly activities (Han et al., 2010; Manaktola and Jauhari, 2007). According to Laroche et al. (2001), people who are aware of the importance of environmental activities will actively participate in such behaviors. Similarly, Manaktola and Jauhari (2007) suggested that such “green customers” are willing to behave in eco-ways in daily life and change their purchasing behavior in favor of the environment. Some scholars suggested that tourists prefer staying at a green hotel because they believe that doing so contributes to environmental protection (Huy et al., 2023; Rahman and Reynolds, 2016). Huy et al. (2023) showed that when tourists are more interested in environmental issues and have more motivation, opportunity, and ability to process green information on social media, they have higher ISGH. In an empirical study, Han et al. (2010) confirmed that the formation of ISGH can be different between customers who regularly participate in environmentally activities and those who occasionally do so. Similarly, Noor and Kumar (2014) also found that the more engaged a tourist in environmental activities, the higher is his/her intention to choose a green hotel.

Additionally, many studies have demonstrated that a sense of connection with nature is an important factor leading to the development of environmental concerns and responsible behaviors (Sulphrey and Faisal, 2021; Martina et al., 2020; Mayer and Frantz, 2004). This was confirmed by Whitburn et al. (2019) when they found a profound relationship between connectedness to nature and pro-environmental behavior. People with a connection to nature are more likely to engage in pro-environmental behavior and in conservation activities. Based on these reasons, the next proposed hypotheses are:

H4 Environmental activities positively influence intention to stay at green hotels.

H5 Environmental activities mediate the relationship between connectedness to nature and intention to stay at green hotels

Hedonic value can be found in the mentally and emotionally stimulating interactions between users on social media (Nambisan and Baron, 2009). Hedonic value affects the purchase intention of customers (Lu and Hsiao, 2010). According to Perez-Vega et al. (2018), hedonic value will lead to positive behavior and purchase intention for the product/service interacted with when the customer uses social media. At the same time, social media features may have a special ability to enhance a user's sense of connection with nature. People who care about the environment and who are actively involved in environmental activities are likely to seek, discuss, and share related contents on social media. Tanford et al. (2020) argue that social media positively affects consumers' evaluation of a sustainability-oriented hotel. In the same vein, Alsaad et al. (2023) argued that customers with environmental concerns tend to pay attention to environmental content on social media. Hence, green hotel managers can promote their environmentally practices on social media to increase tourists' intention to stay at their hotels (Clark et al., 2023). When individuals care about the natural environment, they are more likely to seek green information on social media and engage in environmentally responsible actions (Line and Hanks, 2016). In this study, in order to

gain a deeper understanding of the moderating role of social media users' hedonic value on the relationship between connectedness to nature, environmental concern, and environmental activities with ISGH, we propose the following hypotheses:

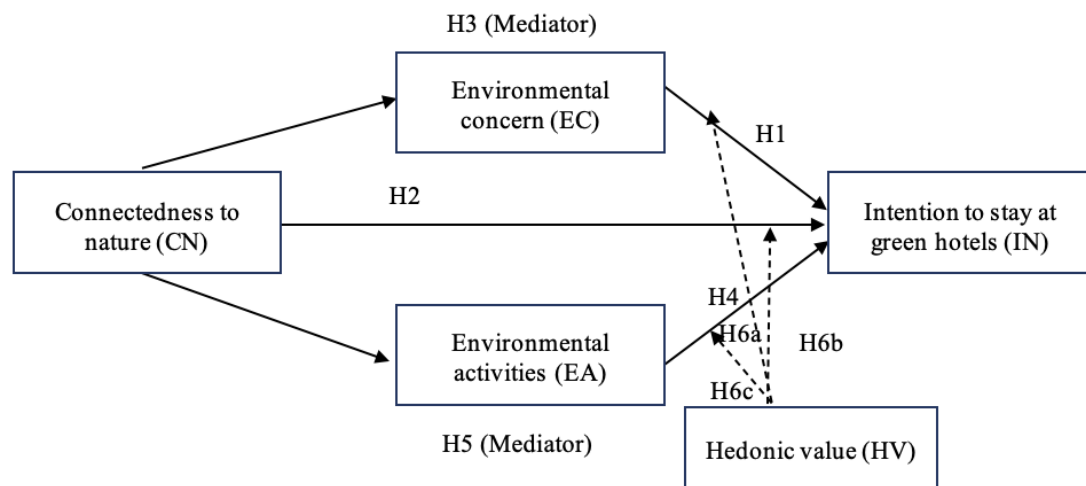
H6a Hedonic value moderates the influence of connectedness to nature on intention to stay at green hotels.

H6b Hedonic value moderates the influence of environmental concern on intention to stay at green hotels.

H6c Hedonic value moderates the influence of environmental activities on intention to stay at green hotels.

Our research model is as below.

Figure 1: Research model



Methodology

Sampling and data collection

Research data were collected by convenient sampling method. Survey subjects include people living in Hanoi, Da Nang and Ho Chi Minh City, which are major cities located in the North, Central and South of Vietnam, a country with an emerging economy and rapid industrialization where environmental issues has become increasingly urgent . This study used two types of surveys, face-to-face and online. For the online survey, the study used popular communication channels such as Zalo, Messenger and E-mail.

Data collection took place from January to March 2023, during which a total of 688 questionnaires were received. Checking for missing values and outliers resulted in the elimination of 88 questionnaires, leaving 600 valid responses for data analysis. Table 1 presents the sociodemographic characteristics of the respondents. Out of 600 responses, male respondents accounted for 52.5% and 47.5% were female. The majority of the respondents were in the age group of 18-24 years old (49.7%) and 25-44 years old

(44.5%). In addition, 36.5% of the respondents were married and 63.5% were not married.

Table 1: Demographic characteristics of respondents

Characteristics	Frequency	Pct (%)
Gender	Male	315
	Female	285
Age	18 – 24	298
	25 – 44	267
	45 – 60	32
	Above 60	3
Marrital status	Married	219
	Not married	381

Measures

The scale items are inherited from previous studies: Connectedness to nature (CN) includes 11 items from Mayer and Frantz (2004) such as “I think of the natural world as a community to which I belong” and “I often feel part of the web of life”. Environmental concern (EC) has 5 items based on Mostafa (2009) such as “Humans must live in harmony with nature in order to survive”. Environmental activities (EA) include 3 items taken from Han et al. (2010) such as “When buying something wrapped, I often check whether it is wrapped in recyclable material”. Intention to stay at green hotels (IN) is composed of 3 items (Han et al., 2010) such as “I am willing to stay at a green destination when traveling”. Hedonic value on social networks includes 4 questions according to Zhang et al. (2015) such as “My interactions on social media platforms are enjoyable and relaxing”. A 7-point Likert scale is used, ranging from 1: Strongly disagree to 7: Strongly agree. Table 2 describes the scale items in detail.

Table 2: Scale items

Code	Items	Source
	Connectedness to nature (CN)	
CN1	I often feel a sense of oneness with the natural world around me	Mayer and Frantz (2004)
CN2	I think of the natural world as a community to which I belong	
CN3	I recognize and appreciate the intelligence of other living organisms	
CN4	I often feel disconnected from nature	
CN5	I often feel a kinship with animals and plants	
CN6	I feel as though I belong to the Earth as equally as it belongs to me	
CN7	I have a deep understanding of how my actions affect the natural world	
CN8	I often feel as a part of the web of life	
CN9	Like a tree can be part of a forest, I feel embedded within the broader natural world	
CN10	When I think of my place on Earth, I consider myself to be a top member of a hierarchy that exists in nature	
CN11	I often feel like I am only a small part of the natural world around me, and that I am no more important than the grass on the ground or the birds in the trees	

	Environmental concern (EC)	
EC1	The balance of nature is very delicate and can be easily upset	Mostafa (2009)
EC2	When humans interfere with nature, it often produces disastrous consequences	
EC3	Humans must live in harmony with nature in order to survive	
EC4	Humans are severely abusing the environment	
EC5	Humans have the right to rule over the rest of nature	
	Environmental activities (EA)	
EA1	I frequently use recycle boxes/bags	Han et al. (2010)
EA2	When buying something wrapped, I often check whether it is wrapped in recyclable material	
EA3	I frequently buy disposable products (e.g., plastic drinking straw, knives, forks, and spoons; styrofoam cups)	
	Hedonic value (HV)	
HV1	My interactions about green activities on social media platforms are enjoyable and relaxing	Zhang et al. (2015)
HV2	I derive fun and pleasure from the interactions about green activities on social media platforms	
HV3	My interactions about green activities on social media platforms entertain and stimulate my mind	
HV4	I have enjoyment from green activities-related problem solving, idea generation, and so on, on social media platforms	
	Intention to stay at green hotels (IN)	
IN1	I am willing to stay at a green hotel when traveling	Han et al. (2010)
IN2	I plan to stay at a green hotel when traveling	
IN3	I will make an effort to stay at a green hotel when traveling	

Data analysis

SPSS 25.0 and AMOS 20.0 are used for data analysis. First, the scales were evaluated by Cronbach's alpha coefficient, exploratory factor analysis (EFA), and confirmatory factor analysis (CFA) to confirm its reliability, convergent validity, discriminant validity, and composite reliability. Structural equation modeling (SEM) was then used to test the structural relationships between the variables in our proposed model.

Results

EFA and CFA Results

Cronbach's alpha coefficients of the scales range from 0.870 to 0.920, which is appropriate (Hair et al., 2014) (see Table 3). However, for the scale of Connectness to Nature, 3 items are removed due to having a total correlation coefficient below 0.3. Those are CN4 “I often feel disconnected from nature”, CN10 “I feel that all inhabitants of Earth, human, and nonhuman, share a common life force”, and CN11 “Like a tree can be part of a forest, I feel embedded within the broader natural world”. As a result, 5 factors with 23 items remained for EFA.

EFA results show a KMO value of 0.942, which is above 0.5, and is significant at the 1% level. There are 5 factors extracted with the total variance extracted of 72.621%. The items in the scales all have factor loads varying from 0.635 to 0.892, all above 0.5. This proves that these scales explain the concepts well (Hair et al., 2014).

In addition, despite the application of remedial measures according to the research design process (such as construction of the scale, design and validation of survey questionnaires, anonymity of survey respondents), common method bias (CMB) can be a problem, potentially affect the research results (Podsakoff et al., 2003). Therefore, the Harman single-factor test was used to evaluate the statistical general method bias (CMB) (Podsakoff et al., 2003). The test results show that there is no single dominant factor accounting for most of the variance (5 factors have variances of 22.6, 15.11%, 14.21%, 10.6%, and 10.11% is less than the threshold value of 50%). Therefore, there was no CMB in this study (Podsakoff et al., 2012).

CFA analysis conducted with 5 factors in the research model also showed that the measurement model is a good fit: RMSEA = 0.045 < 0.08; CFI = 0.968; TLI = 0.972; GFI = 0.932 > 0.9; Chi-square = 483.546 ($p < 0.001$), CMIN/df = 2.198 < 3 (Hair et al., 2014). In addition, the (normalized) factor weights of the variables are statistically significant (0.692 - 0.885; $p < 0.001$) and the correlations of the component concepts combined with standard error all have $p < 0.001$ (Hair et al., 2014). At the same time, the scales all reached the general reliability > 0.6; AVE > 0.5 (Hair et al., 2014) (Table 3) and the square-roots of AVEs are greater than the correlations. Therefore, the measurement scale is reliable and valid.

Table 3: EFA and CFA results

Variable	Cronbach's Alpha	CR	AVE	1	2	3	4	5
1. Connectedness to nature	0.920	0.921	0.594	0.771				
2. Environmental concern	0.870	0.874	0.583	0.559*	0.764			
3. Environmental activities	0.880	0.880	0.709	0.586*	0.514*	0.842		
4. Intention to stay at green hotels	0.913	0.913	0.778	0.499*	0.501*	0.647*	0.882	
5. Hedonic value	0.912	0.911	0.718	0.480*	0.472*	0.612*	0.656*	0.847

Note: Square roots of AVEs are in bold in the diagonal. * Denotes p -value < 0.001.

SEM Result

Structural equation modeling (SEM) analysis is applied to estimate the research model. SEM results show that CMIN/df=2.839; GFI=0.928; CFI=0.963; TLI=0.957; RMSEA=0.055, indicating that the model fits well (Doll et al., 1994; Hair et al., 2014).

The results of analysis of effects and testing of hypotheses are presented in Table 4. The results show that both Environmental concern and Environmental activities of

tourists have a significant impact on ISGH. The coefficient is 0.215 and 0.495, respectively. This supports hypotheses *H1* and *H4*.

The findings show that Connectedness to nature has an insignificant direct impact on ISGH ($p > 0.05$). Therefore, hypothesis *H2* is not supported. On the other hand, the results confirm that Environmental concern mediates the relationship between Connectedness to nature and ISGH ($\beta = 0.123$, $p < 0.05$). This supports hypotheses *H3*. Moreover, the mediating effect of Environmental activities was found significant and positive in considered relation between Connectedness to nature and ISGH ($\beta = 0.296$, $p < 0.05$). In other words, Connectedness to nature has a statistically significant indirect impact on ISGH ($\beta = 0.419$, $p < 0.05$). This supports hypotheses *H5*.

Regarding the moderating effects of social media users' Hedonic value, the moderating role of Hedonic value on the impacts of Environmental concerns and Environmental activities of tourists on ISGH was significant. The coefficient is -0.065 and -0.075, respectively. Thus, hypotheses *H6b* and *H6c* are supported. However, the moderation effect of Hedonic value on the relationship between Connectedness to nature and ISGH is insignificant ($p > 0.05$). As a result, hypothesis *H6a* is rejected.

Table 4: SEM results

Hypothesis	Path	Standardized coefficient (β)	p-value	Result
H1	Environmental concern $\rightarrow$ Intention to stay at green hotels	0.215	0.000	Accepted
H2	Connectedness with nature $\rightarrow$ Intention to stay at green hotels	0.094	0.080	Not accepted
H3	Connectedness with nature $\rightarrow$ Environmental concern $\rightarrow$ Intention to stay at green hotels	0.123	0.000	Accepted
H4	Environmental activities $\rightarrow$ Intention to stay at green hotels	0.495	0.000	Accepted
H5	Connectedness with nature $\rightarrow$ Environmental activities $\rightarrow$ Intention to stay at green hotels	0.296	0.000	Accepted
H6a	Hedonic value moderates the impact of Connectedness to nature on Intention to stay at green hotels	-0.065	0.060	Not accepted
H6b	Hedonic value moderates the impact of Environmental concern on Intention to stay at green hotels	-0.075	0.045	Accepted
H6c	Hedonic value moderates the impact of Environmental activities on Intention to stay at green hotels	-0.084	0.015	Accepted

Discussion

Our results confirm that Connectedness to nature has a strong influence on customers' Environmental concern and Environmental activities. This means the level of connection with nature can motivate customers to be more environmentally conscious

and willing to act for the environment. In fact, the connection with nature possibly makes customers feel at home, blending into the very natural freshness. Therefore, customers see themselves as part of the natural environment and carry out specific activities to protect nature as an act to also protect themselves. This result is consistent with previous studies suggesting that connectedness with nature positively influences environmental concerns and environmental activities of customers (Martin et al., 2020; Gkargkavouzi et al., 2018; Rahman and Reynolds, 2016).

Our study highlights that customers' environmental concern and environmental activities are two positive predictors of ISGH. This finding is consistent with the Norm activation theory and previous findings by other researchers who suggested that when consumers think that they should act responsibly with environmental or feel that they have a moral obligation concerning the environmental, their pro-environmental behavioral intention is enhanced (Hou and Wu, 2021; Setiawan, 2021; Han et al., 2010). Our result can also be explained as follows. First, for people who care about the environment, they want to provide good things to the environment. Second, when they realize that green hotels also care and act for the environment in the hotels' business process, they see the interdependence between the hotel and themselves. Thus, the intention to stay at these hotels will increase. However, our study shows that connectedness to nature has no significant impact on ISGH. This finding is inconsistent with the findings of Martin et al. (2020). The reason could be because the customer's nature and the hotel's green environment do not have much in common. The above results lead to our findings that environmental concern and environmental activities mediate the relationship between nature connectedness and tourists' intention. This shows that feeling interconnected with nature leads to individual's concern about environment and engages them in environmental activities, which in turn results in a higher tendency to choose green hotels.

Finally, our study examines the moderating role of social media users' hedonic value as an individual factor in predicting ISGH. The findings confirm the moderating role of hedonic value on the effects environmental concern and environmental activities have on intention to stay at green hotel. It can be seen that hedonic value has a negative moderating effect. This indicates that if hedonic value increases, environmental concern and environmental activities will have less impact on ISGH. The explanation could be that hedonic value motivates customers to interact on social networks to generate pleasure, stimulation, enjoyment, and knowledge acquisition and integration. This outcome is consistent with the prior study by Martin-Consuegra et al. (2019), which found that consumers with hedonic motivation may find a good mood when browsing social media and more enjoyment when participate in social media discussion. Indeed, hedonic customers are more inclined to pay attention to the recommendations made by their social groups about green hotels. As a result, the impact by environmental concern and environmental activities on ISGH become less pronounced. Our results also show that hedonic value does not affect the relationship between connectedness to nature and intention to stay at green hotels since this relationship itself is insignificant.

Theoretical Implications

Based on the Theory of planned behavior and the Norm activation theory, the current study aims to determine the impact of connectedness to nature, environmental concern

and environmentally activities on the intention to stay at green hotels. The moderating role of hedonic value of social media users is also examined. To some extent, the uniqueness of this study is that it considers the inter-relationships of individual factors including connectedness to nature, environmental concern and environmental activities on explaining tourists' intention to stay at green hotels. The existing literature has investigated the role of internal factors on tourists' behavior toward green hotels. However, the correlations between the internal factors has not been investigated, especially in developing countries. The study confirms the direct impact of environmental concern on intention to stay at green hotels. Moreover, this study explores a mechanism to explain the effect of connectedness to nature on green purchase intention. We found that environmental activities and environmental concern are essential bridges in promoting green hotel intention.

The moderating role of hedonic value tested in this study would increase the predictability of the influence of psychological, cognitive, and environmentally behaviors in understanding customers' intention to stay at green hotels. We also find that intention to stay at green hotels is explained more by individual perception and behavior (i.e. environmental concern and environmental activities) than by effective perception (i.e. connectedness to nature). This makes a relevant contribution to the field of environmental and sustainable hospitality research as well as the understanding of tourists' eco-behavior.

The hedonic value brought to tourists from social networks such as fun, interesting and relaxing, entertaining and stimulating... has increased the ability to predict the intention to stay at green hotels by these predictors. In this context, managers of a hotel should not only develop green practices but also need to develop social media green marketing strategies to create a connection between tourists and the hotel in order to improve the hotel's competitive position. This is the first paragraph under the main heading.

Practical Implications for Asian Business

In the next decade, tourism demand is predicted to rise 4% annually, faster than the global economic growth pace. The Asia-Pacific region is expected to welcome the most number of international tourists - about 535 million in 2030. Thus, the potential business for Asian hotels, particularly the newly developed green hotels, is very high. As our findings suggest that tourists' experience on social media will affect their intention to stay at a green hotel, Asian green hotel businesses should develop their social media profiles to facilitate information findings and discussion by travelers. This is crucial for the success of Asian green hotels due to several reasons. First, the use of social media is particularly relevant in the post-COVID-19 period as travelers have increasingly relied more on social media platforms like Instagram, Facebook, or Twitter to find destination inspiration, research hotels, and plan activities (Wen et al., 2020; Gumpo et al., 2020). Second, previous research indicate that the use of social media across Asia-Pacific was far higher than any other region (44% of APAC travelers use social media to help inform their decision of destination, compared with only 14% in EMEA and 18% in the USA) . This shows that travelers in the Asia-Pacific region are more digitally-savvy than other parts of the world. Moreover, social media are much more popular among younger generations of travelers, and those are people potentially more interested in green hotels (Clark et al., 2023) . Finally, the information collected

from social media can be very useful for hotel managers to learn about traveler perceptions of their hotel. Hence, they can form more effective hotel management tactics.

The current study has shown that hotels will be under pressure to become “green” when more tourists choose to stay at green hotels. The environmental activities conducted/promoted by Asian green hotels will have direct positive impact on the environment. Therefore, Asian green hotels, and the local authorities as well, should step up their effort to raise awareness about environmental issues and to promote environmental activities because our results show that environmental concern and environmental activities are two positive predictors of the intention to stay at green hotels. To do so, it is important to examine the effective ways to promote environmental issues and activities on social media. The government should also step in with communication campaigns and support policies for hotels to do so. These activities will help Asian green hotels to attract more travelers, generate more revenues and contribute to a more sustainable tourism industry in Asia.

Our results also imply that interaction between the hotel’s social media page and customers should be enhanced to increase the hedonic value of using social media. Interactive and appealing contents should be created to effectively communicate with customers on social media (Kapoor et al., 2021). Doing so, customers’ awareness about environmental issues will be raised among social media users. Overall, it is suggested that Asian green hotel should carefully develop effective social media marketing strategies to capture the market potential in the upcoming years.

Acknowledgements

We would like to thank the Editors and the anonymous referees for the suggestions. This research was funded by Vietnam National Foundation for Science and Technology Development (NAFOSTED) under grant number 502.02-2020.35.

References

- Ahn, J., and Kwon, J. (2020), “Green hotel brands in Malaysia: Perceived value, cost, anticipated emotion, and revisit intention”, *Current Issues in Tourism*, vol. 23, No. 12, pp. 1559-1574.
- Ajzen, I. (1991), “The theory of planned behavior”, *Organizational Behaviour and Human Decision Processes*, no. 50, pp. 179-211.
- Al-Aomar, R., and Hussain, M. (2017), “An assessment of green practices in a hotel supply chain: A study of UAE hotels”, *Journal of Hospitality and Tourism Management*, vol. 32, pp. 71-81.
- Alsaad, A., Alam, M.M. and Lutfi, A. (2023), “A sensemaking perspective on the association between social media engagement and pro-environment behavioral intention”, *Technology in Society*, Vol. 72, 102201, doi: 10.1016/j.techsoc.2023.102201
- Bashir, S., Khwaja, M. G., Turi, J. A., and Toheed, H. (2019), “Extension of planned behavioral theory to consumer behaviors in green hotel”, *Heliyon*, vol. 5, no. 12, pp 02974.
- Chen, M. F., and Tung, P. J. (2014), “Developing an extended theory of planned behavior model to predict consumers’ intention to visit green hotels”, *International journal of hospitality management*, vol. 36, pp. 221-230.

- Chen, Y.S. and Chang, C.H. (2012), "Enhance green purchase intentions – The roles of green perceived value, green perceived risks, and green trust", *Management Decision*, vol.50, no.3, pp. 502–520.
- Choi, H., Jang, J. and Kandampully, J. (2015), "Application of the extended VBN theory to understand consumers' decisions about green hotels", *International Journal of Hospitality Management*, vol. 51, pp. 87–95.
- Chomvilailuk, R., and Dolnicar, K. (2023), "Enhancing employee advocacy of the firm's corporate social responsibility (CSR) activities", *Asia-Pacific Journal of Business Administration*, (ahead-of-print).
- Clark, M., Kang, B., and Calhoun, J. R. (2023). Green meets social media: young travelers' perceptions of hotel environmental sustainability. *Journal of Hospitality and Tourism Insights*, 6(1), 36-51.
- Dolnicar, S., Knezevic Cvelbar, L. and Grun, B. (2019), "A sharing-based approach to enticing tourists to behave more environmentally", *Journal of Travel Research*, vol. 58, no. 2, 241-252, doi: 10.1177/0047287517746013.
- Fauzi, M.A., Hanafiah, M.H. and Kunjuraman, V. (2022), "Tourists' intention to visit green hotels: building on the theory of planned behaviour and the value-belief-norm theory", *Journal of tourism futures*, pp. 1-22, DOI 10.1108/JTF-01-2022-0008
- Felix, R., Hinsch, C., Rauschnabel, P.A. and Schlegelmilch, B.B. (2018), "Religiousness and environmental concern: a multilevel and multi-country analysis of the role of life satisfaction and indulgence", *Journal of Business Research*, vol. 91, pp. 304-312.
- Fujii, S. (2006), "Environmental concern, attitude toward frugality, and ease of behaviour as determinants of pro-environmental behaviour intentions", *Journal of Environmental Psychology*, vol. 26, no. 4, pp. 262–268.
- Gamage, S.K.N., Illangarathne, S., Kumudumali, T., Nedelea, A. (2020), "Terrorism and Tourism: A Systematic Review of Empirical Literature", *Revista de turism - studii si cercetari in turism*, vol. 29, pp. 1-10.
- Gumpo, C. I., Madinga, N. W., Maziriri, E. T., & Chuchu, T. (2020). Examining the usage of Instagram as a source of information for young consumers when determining tourist destinations. *South African Journal of Information Management*, 22(1), 1-11.
- Hair, J. F., Black, W. C., Babin, B. J., and Anderson, R. E. (2014), "Multivariate data analysis", Harlow, Essex: Pearson.
- Han, H. (2020), Theory of green purchase behavior (TGPB): A new theory for sustainable consumption of green hotel and green restaurant products. *Business Strategy and the Environment*, vol. 29, no. 6, pp. 2815-2828.
- Han, H., Hsu, L. T. J., and Sheu, C. (2010), "Application of the theory of planned behavior to green hotel choice: Testing the effect of environmental activities", *Tourism management*, vol.31, no.3, pp 325-334.
- Han, H., Meng, B., and Kim, W. (2017), "Emerging bicycle tourism and the theory of planned behavior", *Journal of sustainable tourism*, vol. 25, no. 2, pp. 292-309. <https://doi.org/10.1080/09669582.2016.1202955>
- Huy, L.V., Nguyen, H.T.T., Hoang Long, P., Quyen Phu Thi, P. and Tan Nhat, P. (2023), "Going green: predicting tourists' intentions to stay at eco- hotels – the roles of green attitude and environmental concern", *Journal of Hospitality and Tourism Insights*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JHTI-05-2023-0355>
- Holmgren M, Kabanshi, A. and Sorqvist, P. (2017), "Occupant perception of "green" buildings: Distinguishing physical and psychological factors", *Building and Environment*, vol. 114, pp. 140–147
- Hou, H. and Wu, H. (2021), Tourists' perceptions of green building design and their intention of staying in green hotel. *Tourism and Hospitality Research*, vol. 21, no.1, pp. 115-128.
- Kapoor, P. S., Balaji, M. S., & Jiang, Y. (2021). Effectiveness of sustainability communication on social media: Role of message appeal and message source. *International Journal of Contemporary Hospitality Management*, vol. 33, no. 3, pp. 949-972.
- Laroche, M., Bergeron, J., and Barbaro-Forleo, G. (2001), "Targeting consumers who are willing to pay more for environmentally products", *Journal of Consumer Marketing*,

- vol. 18, no.6, pp. 503–520.
- Leopold, A. (1949), *A Sand County almanac and sketches here and there* Oxford University Press. New York.
- Line, N.D. and Hanks, L. (2016), “The effects of environmental and luxury beliefs on intention to patronize green hotels: the moderating effect of destination image”, *Journal of Sustainable Tourism*, Vol. 24 No. 6, pp. 904-925, doi: 10.1080/09669582.2015.1091467.
- Lu, H. P., and Hsiao, K. L. (2010), “The influence of extro/introversion on the intention to pay for social networking sites”, *Information and Management*, vol.47, no.3, pp.150-157.
- Lu, H. P., and Hsiao, K. L. (2010), “The influence of extro/introversion on the intention to pay for social networking sites”, *Information and Management*, vol.47, no.3, pp.150-157.
- Manaktola, K., and Jauhari, V. (2007), “Exploring consumer attitude and behavior towards green practices in the lodging industry in India”, *International Journal of Contemporary Hospitality Management*, vol.19, no.5, pp. 364–377
- Mark, N., and Law, M. (2015), “Encouraging green purchase behaviours of Hong Kong consumers”, *Asian Journal of Business Research* ISSN, vol.5, no.2, pp. 2015
- Martin, L., Mathew P. W., Hunta, A., Richardsons, M., Pahlb, S., Burt, J. (2020), “Nature contact, nature connectedness and associations with health, wellbeing and pro-environmental behaviours”, *Journal of Environmental Psychology*, vol.68, pp.1-12, <https://doi.org/10.1016/j.jenvp.2020.101389>
- Mayer, F. S., and Frantz, C. M. (2004), “The connectedness to nature scale: A measure of individuals' feeling in community with nature”, *Journal of Environmental Psychology*, vol.24, no.4, pp. 503–515.
- Meng, B., Chua, B. L., Ryu, H. B., and Han, H. (2020), “Volunteer tourism (VT) traveler behavior: Merging norm activation model and theory of planned behavior”, *Journal of Sustainable Tourism*, vol.28, no.12, pp.1947-1969.
- Mohammed, A., and Al-Swidi, A. (2020), “The mediating role of affective commitment between corporate social responsibility and eWOM in the hospitality industry”, *Journal of Sustainable Tourism*, vol.29, no.4, pp.570-594.
- Mostafa, M. M. (2009), “Shades of green: A psychographic segmentation of the green consumer in Kuwait using self-organizing maps”, *Expert systems with Applications*, vol.36, no.8, pp.11030-11038.
- Nambisan, S., and Baron, R. A. (2009), Virtual customer environments: testing a model of voluntary participation in value co-creation activities. *Journal of product innovation management*, 26(4), 388-406.
- Nicolae, J. C., and Sabina, D. B. M. (2012), The ICT implication on CSR in the tourism of emerging markets. *Procedia Economics and Finance*, 3, 702-709.
- Noor, N.A.M., and Kumar, D. (2014), ECO ‘Activities’ VS ECO ‘Attitude’: Travelers Intention to Choose Green Hotels in Malaysia, *World Applied Sciences Journal* 30 (4), 506-513. DOI: 10.5829/idosi.wasj.2014.30.04.14062
- Park, H. J., and Lin, L. M. (2020), “Exploring attitude–behavior gap in sustainable consumption: Comparison of recycled and upcycled fashion products”, *Journal of Business Research*, vol.117, pp.623-628.
- Park, J., and Ha, S. (2014), “Understanding consumer recycling behavior: Combining the theory of planned behavior and the norm activation model”, *Family and consumer sciences research journal*, vol.42, no.3, 278-291.
- Perez-Vega, R., Taheri, B., Farrington, T. and O’Gorman, K. (2018), “On being attractive, social and visually appealing in social media: the effects of anthropomorphic tourism brands on Facebook fan pages”, *Tourism Management*, vol. 66, pp. 339- 347. doi: <https://doi.org/10.1016/j.tourman.2017.11.013>
- Podsakoff, P. M., MacKenzie, S. B., and Podsakoff, N. P. (2012), Sources of Method Bias in Social Science Research and Recommendations on How to Control It. *Annual Review of Psychology*, vol. 63, no.1, pp. 539–569. <https://doi.org/10.1146/annurev-psych-120710-100452>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., and Podsakoff, N. P. (2003), “Common method

- biases in behavioral research: A critical review of the literature and recommended remedies”, *Journal of Applied Psychology*, vol.88, no.5, pp. 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Rahman, I., and Reynolds, D. (2016), “Predicting green hotel behavioral intentions using a theory of environmental commitment and sacrifice for the environment”, *International Journal of Hospitality Management*, vol. 52, pp. 107-116. doi:10.1016/j.ijhm.2015.09.007
- Richardson, M., Passmore, H. A., Barbett, L., Lumber, R., Thomas, R., and Hunt, A. (2020), “The green care code: How nature connectedness and simple activities help explain pro-nature conservation behaviours”, *People and Nature*, vol. 2, no. 3, pp. 821-839.
- Rosenthal, S., and Ho, K. L. (2020), “Minding other people's business: Community attachment and anticipated negative emotion in an extended norm activation model”, *Journal of environmental psychology*, vol. 69, pp. 101439.
- Schultz, P. W. (2002), “Inclusion with nature: The psychology of human-nature relations”, *Psychology of sustainable development*, pp. 61-78.
- Schwartz SH (1977), “Normative influences on altruism. In: Berkowitz L (ed.) "Advances in Experimental Social Psychology", New York: Academic Press, vol.10, pp.221–279.
- Sinnappan, P., Salim, F. A. A., Maideen, M. B. H., and Kunjiapu, S. (2023), “The effect of environmental concern and global environmental connectedness on green purchase intention of hotel customers in Malaysia”, *International Journal of Sustainable Society*, vol.15, no.1, pp.1-19.
- Setiawan, B. (2021). Personal norm and pro-environmental consumer behavior: an application of norm activation theory. *ASEAN Marketing Journal*, 13(1), 40-49.
- Sulphey, M.M. and Faisal, S. (2021), “Connectedness to Nature and Environmental Concern as Antecedents of Commitment to Environmental Sustainability”, *International Journal of Energy Economics and Policy*, vol.11, no.2, pp.208-219. DOI:10.32479/ijee.10803
- Sultana, N., Amin, S., and Azharul Islam, A. (2022), “Influence of perceived environmental knowledge and environmental concern on customers’ green hotel visit intention: mediating role of green trust”, *Asia-Pacific Journal of Business Administration*, vol.14, no.2, pp. 223-243. DOI: 10.1108/APJBA-08-2021-0421
- Tanford, S., Kim, M., and Kim, E. J. (2020), “Priming social media and framing cause-related marketing to promote sustainable hotel choice”, *Journal of sustainable tourism*, vol. 28, no. 11, pp. 1762-1781.
- Wang, L., and Wong, P. P. W. (2020), “Marketing of environmentally hotels in China through religious segmentation: A theory of planned behavior approach”, *Tourism Review*, pp. 1-16.
- Wang, L., Wang, Z.X., Wong, P.P.W., Zhang, Q. (2021), “Consumer motivations, attitude and behavioral intention toward green hotel selection”, *Journal of Tourism, Culinary, and Entrepreneurship*, vol.1, no.2, pp. 79-104
- Whitburn, J., Linklater, W.L., Milfont, T.L. (2019), Exposure to urban nature and tree planting are related to pro-environmental behavior via connection to nature, the use of nature for psychological restoration, and environmental attitudes. *Environment and Behavior*, vol.51, no.7, pp. 787-810
- Zhang, H., Lu, Y., Wang, B., and Wu, S. (2015), The impacts of technological environments and co-creation experiences on customer participation. *Information and Management*, vol. 52, no. 4, pp. 468-482.



All papers are published under the Creative Commons Attribution 4.0 International (CC BY 4.0). For more details, visit <https://creativecommons.org/licenses/by-nc/4.0/>.