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Consumers' Intentions towards Green Hotels in China: An Empirical Study Based on Extended Norm Activation Model

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Abstract: Although the occupancy rate of green hotels is a hot topic in the sustainable tourism economy, few empirical studies have used the expanded norm activation model to explore what drives consumers' intentions to stay at green hotels. This study took environmental concern and perceived consumer effectiveness as antecedents, and perceived price, policy, and publicity as moderator variables to broaden the norm activation mode to explore consumers' willingness to stay at green hotels. The hypothesis was tested in a survey that comprised a sample size of 435 participants in China. The outcomes exhibited environmental concern, and perceived consumer effectiveness as having a significant positive influence on personal norm and behavioral intention. Perceived price, as the external cost, negatively moderated the relationship between personal norm and consumers' behavioral intentions. Policy and publicity had a positive moderating impact on the link between personal norms and consumers' behavioral intentions.

Keywords: green hotel; consumers' intention to stay in green hotels; extended norm activation model; environmental concern; perceived consumer effectiveness

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1. Introduction

Hotels are an energy- and water-intensive industrial sector that rigorously consume non-renewable resources and generate greenhouse gases [1]. The literature [2] shows that 75% of the negative environmental effects in hotels are caused by the unreasonable use of natural resources. Therefore, an increasing number of hotels are adopting proactive approaches for environment management so as to increase their competitive advantage [3]. One of the most effective ways is to guide consumers to participate in the hotels' green practices and improve their environmental awareness [4,5]. When consumers' awareness of environmental protection increases, the occupancy rate of green hotels increases, promoting the sustainable development of green hotels [6].

Previous research [7,8] suggests the planned behavior theory (TPB) is widely used for exploring consumers' intention to stay at a green hotel. TPB is a social cognitive model of human behavior. It takes a personal interest as the starting point and assumes one's environmental protection intention and behavior [9]. However, such pro-environmental intention or actions are activated by self-interest and pro-social motives [10]. Scholars who believe that personal environmental intentions and behaviors are motivated by pro-social motives always adopt normative activation models (NAM) [11].

NAM is one of the characteristic theories of altruistic behavior, and is widely applied to predict consumers' eco-friendly intention and behavior, including sustainable transportation behavior [12] and recycling behavior [13]. It is a pity that the NAM model is only centered on interior moral factors, while ignoring the external factors. To improve the interpretation of NAM, researchers have broadened NAM by merging external factors in pro-environmental field [14,15]: Perceived price and external publicity, which are crucial external variables in the consumers' decision-making process [16]. In addition, many studies have only extended the antecedent variables of personal norms by environmental

concern or perceived consumer effectiveness. Actually, both factors have an important impact on consumer behavior [15,17]. Based on the research above, this paper took environmental concern and perceived consumer effectiveness as the antecedent variables of personal norm, and perceived price, policy, and publicity as the moderating variables to probe into determinants of consumers' intention to stay at a green hotel. In 2019, the China Hotel Association and Universon (Hong Kong) Hotel Management Company jointly released the white paper on the Green Development of China's Accommodation Industry in 2019. The report shows that the number of green hotels has been surging since 2017, and green hotels are performing well. Therefore, this paper took the emerging green hotel economy market in developing countries (i.e., China) as its research background to verify the proposed hypothesis.

This study had the following research contributions: First, we proposed an extended NAM for testing how altruism affects green hotel occupancy intention, enriching the literature on green hotels. Secondly, the model put forward a new insight to extend NAM, introducing perceived price, policy, and publicity as moderating variables to examine how external factors affect the link between personal norms and green hotel occupancy intention. Finally, to achieve a full NAM, environmental concern and perceived consumer effectiveness were designed to test their impact on personal norms and intention to stay at a green hotel.

The rest of the article proceeds below: The second part introduces the relevant literature on green hotels and NAM. The third part describes the research model and assumptions. Sections 4 and 5 show the research methodology, data analysis, and outcomes. Finally, this paper exhibits the discussion, the practical implications, the restrictions, and future investigation prospects.

2. Literature Review

2.1. Environmental Hotel Practices

Growing public concern has prompted the hotel sector for implementing environmental responsibility management. "Green hotel" means an eco-friendly hotel that implements environmental protection measures, such as water/energy conservation, eco-friendly procurement policies, and emission/solid waste reduction for protecting nature [18]. Some clear green initiatives include low flow toilets, hotel room and lobby lighting control key cards, and creating eco-friendly awareness [19,20].

Sustainable hotel management practices, such as water conservation and solid waste reduction, have a positive impact on visitors' willingness to stay in a green hotel [21]. Descriptive norms play a critical role in encouraging consumers to reuse towels in hotel. Enhancing moral norms was of great importance to promote guests' intention of water conservation [22]. In addition, the green implementation of hotels may not only increase stakeholder pressure and improve competitive advantage and reputation, but also enhance company performance and thus reduce costs by limiting the resources [23].

2.2. Normative Activation Model (NAM)

NAM is an important theory for studying altruistic behavior in social psychology. It is widely adopted in the investigation of environmental protection intention and behavior. Personal norms, awareness of consequences, and ascription of responsibility are the three main variables in NAM [11]. Extensive research has shown that NAM can be expanded by increasing the antecedents' variables and integrating external factors. For instance, in the empirical research of how to activate consumers' moral norms, perceived consumer effectiveness resulted in consumers' personal norms and behavior intention [14,24], while environmental concern is also considered to be one of the important antecedent variables affecting consumers' personal norms [5,17]. In addition, external costs negatively moderate impact on the link between consumers' personal norm and behavioral intention [14] and policies and publicity positively moderate impact on the link between personal norms and consumers' behavioral intention [15]. However, few studies have incorporated perceived

consumer effectiveness and environmental concern as antecedent variables of personal norms, or perceived price, policy, and publicity as external factors into one model to study consumers' willingness to stay in green hotels. Therefore, this paper designed a new theoretical model (extended NAM) to study consumers' intention to stay at a green hotel.

3. Investigation Model and Assumptions

3.1. The NAM Original Model

In the NAM model, personal norms mean "having a moral obligation to do and not do something" [25] and awareness of consequence is depicted as whether "one can assess the consequences of not doing these" [26]. The ascription of responsibility is depicted as "If you have non-environmental behavior, then you have to take the responsibility" [26]. Personal norms are the core predictor of pro-environmental intention. Once personal norms are activated, they feel obliged to do environmentally friendly behavior [11]. Awareness of consequences and ascription of responsibility result in personal norms [27]. On the contrary, if awareness of consequences and ascription of responsibility are reduced, the conduct is unlikely to conform to current personal norms. Previous studies have established that the NAM model is a valuable theoretical framework for predicting green travel intention [28] and intention to adopting energy-saving appliances [15]. In addition, the NAM is supported in the hospitality and tourism industry. For instance, the emotional process is incorporated in NAM to explain travelers' behavioral intentions [26]. The extended NAM was applied in hotel guests' eco-friendly decision-formulation course [29]. Hence, the hypotheses below were formulated:

Assumption H1a: *Awareness of consequences positively affects consumers' personal norms;*

Assumption H1b: *Ascription of responsibility positively affects consumers' personal norms;*

Assumption H1c: *Personal norms positively affect consumers' intention to stay at a green hotel.*

3.2. Perceived Consumer Effectiveness

Perceived consumer effectiveness was first proposed as a belief in a specific field; that is, individuals can work hard to solve problems. Perceived consumer effectiveness describes behavior through the combination of consumer perception and social cognitive attitudes [30]. In the environment field, perceived consumer effectiveness is depicted as an individual who can do something to reduce environmental pollution [31], which is related to consumers' perceptions regarding ethical and environmental issues. It has previously been observed that perceived consumer effectiveness is considered as a positive factor towards consumers' personal norms. As was indicated by [14], perceived consumer effectiveness positively affects the intention of adopting electric vehicles. Perceived consumer effectiveness significantly affects the residents' personal norms about purchasing energy-saving appliances [15]. If consumers believe that their consumption behavior has brought benefits to the environment, they will make greater efforts for the environmental protection [32]. Hence, it is deemed that if consumers believe staying in green hotel will be good for environment, they will change traditional consumers' behaviors and stay at a green hotel. They are more inclined to have moral obligation to reduce environmental pollution. The following hypothesis is put forward:

Assumption H2a: *Perceived consumer effectiveness positively affects consumers' personal norms.*

A perceived consumer effectiveness is a person's assessment of his contribution to the environment, which can guide consumers' behaviors [33]. The higher the perceived effectiveness of consumers, the easier it is for them to have a favorable attitude towards the environment [34]. Perceived consumer effectiveness serves as a determinant of consumer's socially responsible consumption. In order to support this stance, as was indicated by [35], perceived consumer effectiveness greatly affects pro-environmental behavior. When consumers judge their abilities to improve environmental issue, they will make effort to exhibit socially responsible behaviors [36,37]. In addition, high levels of perceived consumer

effectiveness encourage customers to choose more sustainable foods among young people in Belgium [38]. Therefore, the hypothesis is posed as:

Assumption H2b: *Perceived consumer effectiveness positively affects consumers' intention to stay at a green hotel.*

3.3. Environmental Concern

With the alarming global warming situation, more and more people are becoming serious about environmental issues [39]. They have realized that their purchasing behaviors may affect the environmental performance of the enterprise [40]. Environmental concern is a pro-environmental attitude [41]. Environmental concern is also defined as a person's emotional reactions, such as reservations, dislikes, and compassion [42] towards environmental problems [43]. Therefore, environmental concern is a key factor in promoting a family's higher personal norms and indirectly encouraging households to change their energy consumption [44]. According to the research of [45], environmental concern can activate consumers' personal norms towards organic food choice. The research of [46] proved environmental concern positively affects personal norm. Hence, the assumption is posed as:

Assumption H3a: *Environmental concern positively affects consumers' personal norms.*

The existing investigation on the link between environmental concern and green product purchase intention shows environmental concern positively affects consumers' intention and behavior of environmental protection. The study of [47] exhibits that environmental concern is a stronger predictor in greenhouse gas emissions. Environmental concern was considered to be a main driving force of consumers' intention to use autonomous electric vehicles [48]. Compared with the group with low environmental concerns, customers with high environmental concerns are more willing to buy energy-saving appliances [15]. Customers with high environmental awareness are more willing to buy green products [49]. In the hotel industry, environmental concern has long been regarded as a positive attitude towards green practice [50]. Therefore, concern for environmental issue is considered as an important predictor on the intention of green consumption behavior. On basis of above discussion, it features an assumption that:

Assumption H3b: *Environmental concern positively affects consumers' intention to stay at a green hotel.*

3.4. The Moderating Effect of Perceived Price

Price is a key parameter in marketing literature [51]. Perceived price can be described as a subjective feeling of consumers on the monetary value of products [52]. When consumers face new product attributes, they assume perceived price and perceived quality, which affects perceived value and intention to purchase [53]. The lower the price of a product, the more likely it is that consumer ethics will affect consumer behavior [54]. Green goods are often not cheaper than traditional goods [55], and the price of organic food is regarded as a key consideration when consumers are making the decisions to purchase them. Since organic food is not cheaper than general food items, on the other hand, researchers argue that the high price is a key obstacle to consume organic food [56,57]. In addition, it has been suggested that perceived price negatively moderates the link between consumers' personal norms, and the intention to adopt electric bikes [15,58]. Although consumers have a moral obligation to stay at a green hotel, they may not want to stay because they think the cost is too high. Hence, this research suggests the assumption below:

Assumption H4: *Perceived price negatively moderates the link between personal norm and intention to stay at a green hotel.*

3.5. The Moderating Effect of Policy and Publicity

China's carbon emission trading policy holds the key to promoting carbon emission reduction and carbon dioxide emission intensity [59]. As presented by [60], environmental policies will improve carbon emission efficiency by reducing energy intensity and adjusting industrial structure. These studies show that the implementation of national environmentally friendly behavior policies significantly affects the intention and behavior of environmental protection. Furthermore, extensive research [61,62] has shown that the incentive policy of financial subsidies affects people's desire to purchase energy-saving appliances. For example, a survey of Florida's use of energy-saving and renewable energy products found that consumers tended to purchase green products with financial subsidies [63]. Furthermore, effective information publicity can be to promote residents' behavior intentions around e-waste recycling, but cannot directly influence intention [13]. Policies and publicity have positively regulated consumers' intentions to use energy-conservation appliances [15]. Hence, on basis of the above discussion, it can be assumed that:

Assumption H5: Policy and publicity have a positive moderation effect on the link between personal norms and intention to stay at a green hotel.

On basis of the above analysis, Figure 1 exhibits a conceptual model:

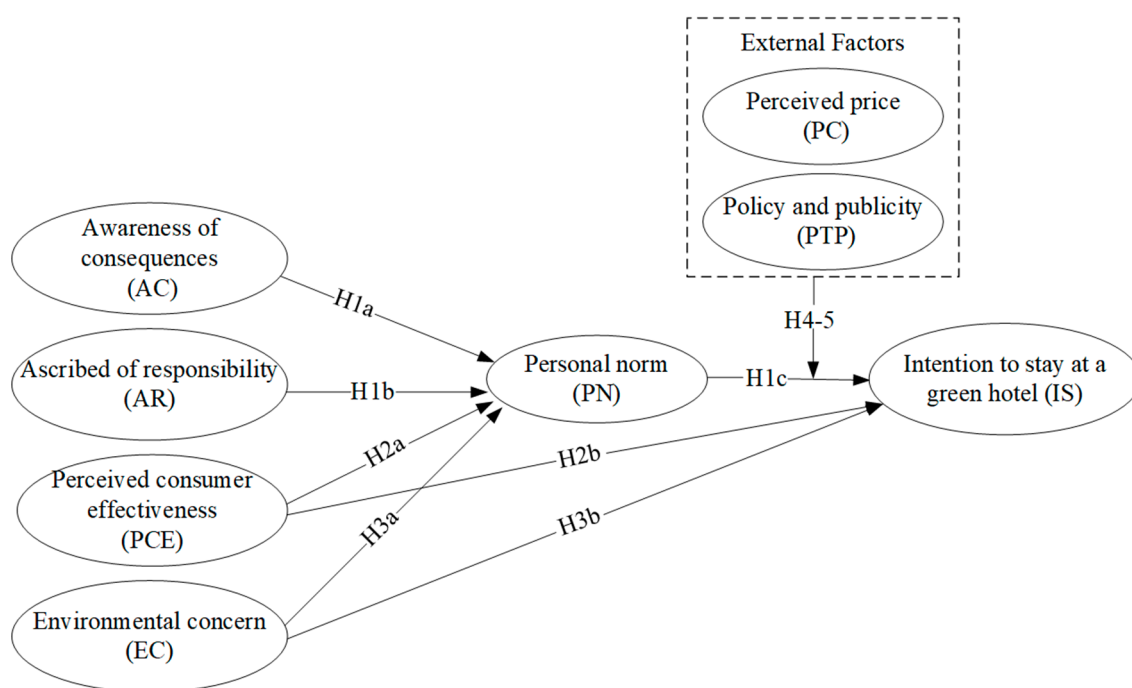


Figure 1. Conceptual model.

4. Research Design

4.1. Questionnaire Design

All measuring terms of constructs were adapted from the previous research. In NAM, awareness of consequences (AC) was measured using four items from previous research by [64]. The four options represented guests' different perceptions of environmental pollution caused by hotels. Ascribed of responsibility (AR) refers to responsibilities of each hotel guest's perception of the environment. We used three items to explore ascribed responsibility from [65]. The items of personal norm (PN) were based on the existing research results of [9]. They focused on personal feelings of living in a green hotel. The three items of intention to stay at a green hotel (IS) stemmed from the previous research of [50].

To measure guests' perceived consumer effectiveness (PCE), four items were developed [37]. Items included "Staying at a green hotel, everyone's behavior will positively affect society", "I think staying in a green hotel can help save energy", "I think staying in a green hotel helps protect the environment", and "I can't do anything about protecting environment".

Environmental concern (EC) was assessed using three items from [66], which included "I greatly focus on environmental issues", "I have a sense of mission to conserve energy and protect the environment", and "I think choosing to stay at green hotel can reduce environment pollution".

The measurement of perceived price (PP) was based on previous research of [67], which included "The price of a green hotel is expensive", "The price of a green hotel is higher than a non-green hotel", and "The price of a green hotel is higher than expected".

The items of policy and publicity (PTP) were developed on basis of [66]. Items included "I've heard about the subsidy policy about staying at the green hotel", "Energy conservation and environmental protection work in our district has been greatly promoted", and "Policy advocacy of energy conservation and environmental protection behavior will motivate me to choose green hotel".

The questionnaires were originally designed in English. Firstly, the English version of the questionnaires was translated into Chinese. Secondly, two professors and eight scholars were invited to go through the questionnaire and improve it. Thirdly, a pilot test was conducted on 50 subjects and the convergent validity and reliability of the questionnaire were evaluated. Appendix A exhibits the final items of the questionnaire and references.

4.2. Samples and Procedures

In order to get data more efficiently and effectively, the questionnaires were carried out in Beijing, Shanghai, Shenzhen, Wuhan, and Chengdu, between January 2019 and September 2019. The five cities represent five major urban agglomerations where green hotels are concentrated. The research objects were tourists participating in green tourism and service providers engaged in green hotels.

The online questionnaire was utilized to collect data by Wenjuanxing, which is an authoritative online questionnaire platform. Local travel agencies were invited to forward online questionnaires to target groups. A total of 600 questionnaires were randomly distributed and as a result 430 valid and complete questionnaires were sorted out. Table 1 exhibits the demographic features of the sample. Just over half the samples (51.5%) were male and the rest 48.5% were female. Importantly, 77.8% of participants were aged between 21 and 45 years. The majority of participants (73.4%) were well educated, and they had a bachelor's degree or above. In terms of monthly income, 67.9% of them were above 5000 RMB, which is considered a good salary in these areas.

4.3. The Variance of Common Methods

In this study, the Harman single consideration test [68] was adopted for testing the common method variance. The variance interpretation rate of the first common factor extracted was 39.106%, which was less than 40% of the standard value, indicating that there was no serious common factor variance in the data of this study.

Table 1. Demographic sample.

Demographic Variables	Categories	Frequency	Percentage (%)
Gender	Male	224	51.5
	Female	211	48.5
	≤20	20	4.6
	21–25	87	20.0

Table 1. Cont.

Demographic Variables	Categories	Frequency	Percentage (%)
Age	26–35	164	37.7
	36–45	92	21.1
	46–55	48	11.0
	≥56	24	5.5
Education	Junior high school and below	28	6.4
	Senior high school	88	20.2
	bachelor's degree	263	60.5
	master's degree and above	56	12.9
	≤3000	68	15.6
Total monthly income (RMB)	3000–5000	72	16.6
	5000–8000	156	35.9
	8000–10,000	119	27.4
	≥10,000	20	4.6

5. Data Analysis and Results

In this paper, statistical analysis was performed using SPSS24.0 and AMOS24.0. The bootstrap approach was employed for testing the mediation role. The moderation effect was examined by hierarchical regression.

5.1. Measurement Model Testing

SPSS24.0 was employed for testing constructs' reliability. Table 2 shows that all eight Cronbach α were above 0.7, which indicates that there was sufficient reliability. Confirmatory factor analysis (CFA) was adopted for testing the convergence of the measurement model, and AMOS24.0 was used for testing the convergence. Table 2 exhibits that the average variance extracted (AVE) from each structure exceeded 0.5; the composite reliability (CR) of variables exceeded 0.7; and a load of all items exceeded 0.7, indicating that each structure had high convergence effectiveness. In addition, the discriminant validity was tested by comparing the square root of the mean variance and the corresponding correlation coefficients. Table 3 exhibits the number of diagonals and the square root of the mean variance. The square root of the average variance of each structure exceeded the correlation coefficient of the paired variables, meeting the criteria for judging the validity.

Table 2. Convergent validity and reliability.

Constructs	Items	Factor Loading	CR	AVE	Cronbach α
AC	AC1	0.727	0.885	0.658	0.883
	AC2	0.846			
	AC3	0.839			
	AC4	0.827			
AR	AR1	0.938	0.934	0.824	0.932
	AR2	0.865			
	AR3	0.919			
PCE	PCE1	0.862	0.902	0.697	0.901
	PCE2	0.843			
	PCE3	0.832			
	PCE4	0.802			
EC	EC1	0.905	0.894	0.739	0.893
	EC2	0.865			
	EC3	0.805			
PN	PN1	0.862	0.893	0.736	0.892
	PN2	0.825			
	PN3	0.885			
PP	PP1	0.864	0.891	0.732	0.889
	PP2	0.899			
	PP3	0.802			

Table 2. Cont.

Constructs	Items	Factor Loading	CR	AVE	Cronbach α
PTP	PTP1	0.861	0.923	0.799	0.921
	PTP2	0.926			
	PTP3	0.894			
IS	IS1	0.852	0.895	0.739	0.895
	IS2	0.846			
	IS3	0.879			

Table 3. Factor correlation coefficient and the square root of the average variance extracted (AVE).

Constructs	M	SD	1	2	3	4	5	6	7	8
1. Awareness of Consequences	3.553	1.045	0.811							
2. Ascribed of Responsibility	3.330	1.194	0.434	0.908						
3. Perceived Consumer Effectiveness	3.272	1.183	0.468	0.575	0.835					
4. Environmental Concern	3.633	1.061	0.437	0.161	0.355	0.860				
5. Personal Norm	3.276	1.128	0.544	0.455	0.561	0.442	0.857			
6. Perceived Price	3.579	1.140	0.344	0.240	0.364	0.378	0.475	0.856		
7. Policy and Publicity	3.476	1.251	0.347	0.315	0.335	0.371	0.537	0.323	0.894	
8. Stay at a Green Hotel	3.320	1.222	0.355	0.453	0.590	0.500	0.711	0.655	0.597	0.860

Note: Diagonal elements represent the square root of AVE, and the others are the correlation coefficient between constructs.

5.2. Result of Structural Model

In this study, the theoretical framework was verified by the structural equation model. The free degree $\chi^2/df = 2.251$, below 3; root mean square error of approximation (RMSEA) = 0.053, below 0.1; goodness of fit index (GFI) = 0.928; the normative fitting index (NFI) = 0.947; incremental fit index (IFI) = 0.970; Tucker–Lewis index (TLI) = 0.963; and the comparative fit index (CFI) = 0.969. The four indicators were greater than 0.9. The indices of the model all met the evaluation standard, indicating that the theoretical model presented in the study aligned with the actual survey data.

The path coefficient of the model is present in Table 4, in which awareness of consequences positively affected personal norms ($\beta = 0.156$, $p < 0.01$); and responsibility attribution positively affected personal norms ($\beta = 0.218$, $p < 0.001$). Compared with awareness of consequences, responsibility attribution had a more significant positive relationship with personal norms. A positive link existed between personal norm and intention to stay at a green hotel ($\beta = 0.489$, $p < 0.001$). Hence, H1a, H1b, and H1c were all supported. The standardized path coefficients presented an obvious positive link between perceived consumer effectiveness and personal norm ($\beta = 0.284$, $p < 0.001$) and the intention to stay at a green hotel ($\beta = 0.264$, $p < 0.001$). Hence, H2a and H2b were both verified. H3a and H3b showed environmental concern positively affected personal norms ($\beta = 0.232$, $p < 0.001$) and the intention to stay at a green hotel ($\beta = 0.187$, $p < 0.001$). From the above empirical outcomes, it can be found that extended norm activation theory in this paper was well-matched and all the assumptions of the major effect were fully supported.

Table 4. Outcomes of main impact analysis.

Assumption Path	Standardized	Unstandardized	S.E.	C.R.	p
H1a:AC $\rightarrow$ PN	0.156	0.169	0.058	2.92	**
H1b:AR $\rightarrow$ PN	0.218	0.197	0.048	4.078	***
H1c:PN $\rightarrow$ IS	0.489	0.507	0.056	9.043	***
H2a:PCE $\rightarrow$ PN	0.284	0.264	0.057	4.652	***
H2b:PCE $\rightarrow$ IS	0.264	0.255	0.047	5.402	***
H3a:EC $\rightarrow$ PN	0.232	0.268	0.059	4.51	***
H3b:EC $\rightarrow$ IS	0.187	0.224	0.053	4.261	***

Note: *** $p < 0.001$, ** $p < 0.01$.

5.3. Mediation Impact Testing

In this research, the bootstrap method was used to test the intermediary effect. A total of 5000 samples were taken. Table 5 exhibits the test results. Personal norms hold the key to the link between perceived consumer effectiveness and intention to stay at a green hotel ($\beta = 0.139$, 95% BC CI = [0.075, 0.219]). Personal norms mediate the link between environmental concern and intention to stay at a green hotel ($\beta = 0.113$, 95% BC CI = [0.060, 0.181]). The confidence interval does not contain 0, suggesting the intermediary impact of personal norms was obvious.

Table 5. Bootstrapping analysis of intermediate effect.

Path		Estimate	Lower	Upper	p
PCE→IS	Total effect	0.403	0.274	0.533	0.000
EC→IS	Total effect	0.301	0.197	0.41	0.000
PCE→IS	Direct effect	0.264	0.143	0.393	0.000
EC→IS	Direct effect	0.187	0.089	0.292	0.001
PCE→PN→IS	Indirect effect	0.139	0.075	0.219	0.000
EC→PN→IS	Indirect effect	0.113	0.060	0.181	0.001

5.4. Adjustment Effect Testing

Hierarchical regression analysis was employed for testing moderate effects of perceived price, policy, and publicity. The results of the correlative analysis are presented in Table 6. The regression coefficient of the interaction term of perceived price and personal norm on model 3 was -0.226 ($p < 0.01$), indicating that perceived price played a negative moderate effect between personal norm and intention to stay at a green hotel, and the H4 of this research was verified, while in Model 5, the regression coefficient of the interaction term of policy and publicity, and personal norm was 0.121 ($p < 0.01$), indicating that policy and publicity played a positive moderate role between personal norm and the intention to stay at a green hotel, and H5 was supported.

Furthermore, we also explored how personal norms affected the intention to stay at a green hotel under different perceived price, policy, and publicity levels. As shown in Figure 2; Figure 3, when the perceived price was lower, the intention to stay at a green hotel was more effected by personal norms. When the perceived price was higher, how personal norm affected the intention to stay at a green hotel gradually weakened. When the policy and publicity was lower, the intention to stay at a green hotel was less effected by personal norm. When the level of policy and publicity increased, the influence of personal norms on willingness gradually increased.

Table 6. Hierarchical regression results.

Variables	IS				
	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	0.081	0.011	0.031	0.029	0.028
Age	0.039	0.019	0.015	0.031	0.033
Education	−0.095	−0.010	−0.009	0.002	0.001
Income	−0.011	0.038	0.029	0.021	0.021
PN		0.481 **	0.438 **	0.491 **	0.517 **
PP		0.368 **	0.310 **		
PTP				0.297 **	0.311 **
PP*PN			−0.226 **		
PTP*PN					0.121 **
R ²	0.007	0.519	0.563	0.476	0.489
Adj-R ²	−0.002	0.513	0.556	0.468	0.481
ΔF	0.781	227.938 ***	42.587 ***	191.188 ***	11.195 ***

Note: *** $p < 0.001$. ** $p < 0.01$.

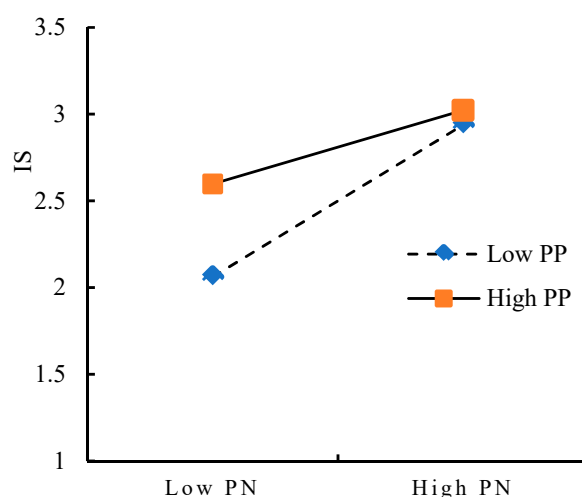


Figure 2. The moderating effect of the perceived price on the link between personal norms and the intention to stay at a green hotel.

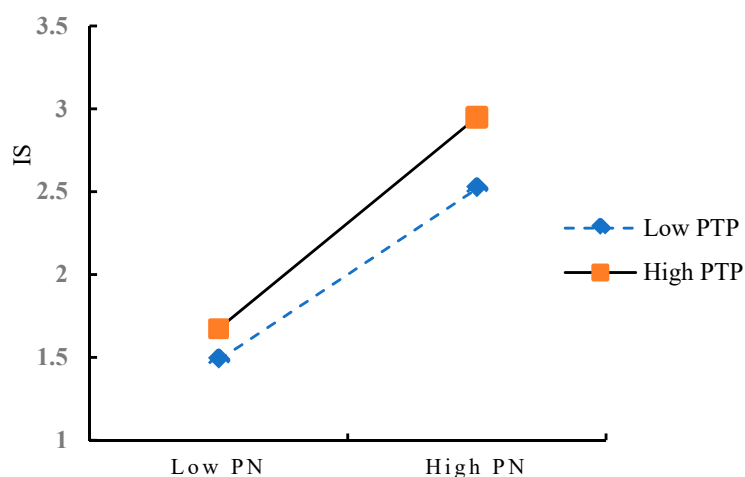


Figure 3. Moderation effects of policy and publicity on the relationships between personal norm and the intention to stay at a green hotel.

6. Discussion and Implication

6.1. Discussion

On basis of NAM theory, this study explored the considerations that affect China's consumers' intention to stay at a green hotel, aiming to solve the following problems: (1) Do environmental concerns and perceived consumer effectiveness help to promote personal norms and green hotel occupancy intention?; and (2) do perceived price, policy, and publicity have a moderate link between personal norms and intention to stay at a green hotel?

Environmental concerns, personal norms, and perceived consumer effectiveness positively affect green hotel occupancy intention. The impact of personal norms on behavioral intention is higher than environmental concern and perceived consumer effectiveness. These results were in line with Schwartz who also found that personal norm plays an important role in pro-environmental intention [11]. In addition, awareness of consequences and responsibility positively affect personal norms, which supports previous work [28]. The more consumers are conscious of the waste of resources and environmental pollution caused by traditional hotels, the more ethical norms guide them to stay at a green hotel, and the more they feel the sense of responsibility and belonging, the more obliged they are to stay at a green hotel. Furthermore, environmental concerns and perceived consumer effectiveness positively affect consumers' personal norms. These results further support the

views of [15]; when consumers have a higher level of environmental concern and perceived consumer effectiveness, they are more likely to use energy saving appliances.

The negatively moderating effect of perceived price on the link between personal norm and the intention to stay at a green hotel, and the positively moderating effect of policy and publicity on the link between personal norm and the intention to stay at a green hotel are supported. Perceived price, as the external cost, has a negative moderate effect on the impact between personal norms and consumers' intentions to stay at a green hotel. When consumers perceive that the price of a green hotel is higher, the impact of personal norm on the intention to stay at a green hotel is weaker. This finding aligns with prior studies, indicating that extra cost affects personal norm on pro-environmental behavior (Butler, 2008). Furthermore, how personal norm affects the intention to stay at a green hotel is also moderated by policy and publicity. If the government has a more intensive incentive policy of financial subsidies, it is easier for consumers to choose a green hotel.

6.2. Research Implications

For starters, personal norms hold the key to consumers' intentions to choose the stay at a green hotel. To promote the development of a green hotel, the government should vigorously promote the environmental benefits of staying at a green hotel and emphasize the moral obligation of consumers to stay at a green hotel, helping consumers establish personal norms. Once consumers' personal norms are established, they will choose a green hotel depending on their ethical responsibilities.

Furthermore, the results of the study showed that environmental concern and perceived consumer effectiveness positively affect consumers' personal norms and behavioral intention. Hence, on one hand, the government and enterprise should attach importance to the promotion of green concepts and improve consumers' awareness of environmental protection. On the other hand, the government should use media networks to give publicity to information about environmental hazards and waste of resources caused by traditional hotels, such as the waste of water resources and the consumption of toiletries. If consumers were aware of a large amount of negative information about the adverse conditions of environment, they would be more motivated to stay at a green hotel.

Finally, this investigation revealed that the perceived price, policy, and publicity have a significant moderate effect. Perceived price negatively moderates the relationship between consumers' personal norms and the intention to stay at a green hotel. Therefore, the government should provide policy support such as loan discounts or a one-time financial subsidy to reduce the cost of a green hotel, expanding the market share of a green hotel. Furthermore, the green hotel should help consumers have a better understanding of green consumerism through TV, newspapers, and the internet, and improve the green image of the enterprise through public welfare activities.

6.3. Restriction and Future Study

First, this study successfully extended the NAM model that accounts for environmental concern and perceived consumer effectiveness as antecedents to verify their impact on personal norms. In fact, anticipated guilt was regarded as one of the important factors influencing consumers' personal norms. In the future, psychological variables can be selected to enrich the literature on the visiting intention of green hotels. Second, the proposed model was more effective for predicting the intention to visit green hotels than the original model, so it might be applicable to other research about pro-environmental intentions. Third, different countries have different cultures; individuals' pro-environmental behaviors may vary depending on national culture [69]. The sample of this paper was based on Chinese consumers, and China is a highly collectivist country, while western countries are more inclined to individualism. Thus, the research model may not be generalized to all consumers' intention to stay at a green hotel. Finally, in future investigations, it might be possible to combine NAM and TBP to explore consumers' intentions to stay at a green hotel.

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Appendix A. Construct and Its Measurement Indicators

Construct		Source
<i>Awareness of consequences</i>		
AC1	Hotels cause pollution, climate change, and depletion of natural resources	Bamberg and Schmidt (2003)
AC2	The hotel will have an environmental impact on the surrounding area and the broader environment	
AC3	Hotels can lead to environmental degradation such as waste, energy /water overuse in guest rooms, restaurants, and other facilities	
AC4	Environmentally responsible hotels implement energy /water conservation, waste reduction, and environmental activities to minimize environmental degradation	
<i>Ascribed sense of responsibility</i>		
AR1	I believe that every hotel guest is partly responsible for the environmental issues resulting from the hotel sector	Onwezen et al. (2013)
AR2	I feel that the hotel industry is responsible for the deterioration of the hotel environment	
AR3	Every hotel guest must be responsible for the environmental issues resulting from the hotel	
<i>Personal norm</i>		
PN1	Living in a green hotel and employing green products/services will make me a better person	Beck and Ajzen (1991)
PN2	Unlike traditional hotels, living in a green hotel makes me feel like a moral person	
PN3	If I don't stay at the green hotel, I feel guilty	
<i>Perceived consumereffectiveness</i>		
PCE1	Staying at a green hotel, everyone's behavior will positively affect society	Kim and Choi (2005)
PCE2	I think staying in a green hotel can help save energy	
PCE3	I think staying in a green hotel helps protect the environment	
PCE4	I can't do anything about protecting environment	
<i>Environmentalconcern</i>		
EC1	I greatly focus on environmental issues	Smith and McSweeney (2007)
EC2	I have a sense of mission to conserve energy and protect environment	
EC3	I think choosing to stay at green hotel can reduce environment pollution	
<i>Perceived price</i>		
PC1	The price of a green hotel is expensive	Petrick (2002)
PC2	The price of a green hotel is higher than a non-green hotel	
PC3	The price of a green hotel is higher than I expected	

Construct		Source
<i>Policy and publicity</i>		
PTP1	I’ve heard about the subsidy policy about staying at the green hotel	Smith and McSweeney (2007)
PTP2	Energy conservation and environmental protection work in our district has been greatly promoted	
PTP3	Policy advocacy of energy conservation and environmental protection behavior will motivate me to choose a green hotel	
<i>Intention to stay at a green hotel</i>		
IS1	I’d like to stay at a green hotel when I travel	Chen and Tung (2014)
IS2	I plan to stay at a green hotel when I travel	
IS3	I try to stay at a green hotel when I travel	

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