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Special

Generation Z and Green Hospitality: Insights into Eco-Conscious Decision-Making

Xeración Z e hostalería ecolóxica: perspectivas sobre a toma de decisións respectuosas co medio ambiente

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Abstract

Green hotels have emerged in response to social demand (i.e., stakeholders pressure) for greater environmental care from the hotel sector, such as, reduction in water and energy consumption and waste generation. However, the initiatives carried out by green hotels have a cost that usually translates into a higher price for guests. The purpose of this study was to examine the variables that determine the willingness to pay a higher price to stay in a green hotel among Generation Z (Gen Z). The model was tested on a sample of 173 Spanish Gen Z using AMOS. The data were obtained through an online questionnaire administered to a convenience sample. The results of the study support the sequence awareness of consequences-ascription of responsibility-personal norm, as well as the inclusion of the attitude towards green hotels as a second mediating variable in the relationship awareness of consequences-personal norm. These findings have important implications for hotel management communication. In this regard, green hotel management should highlight the environmental issues in their surroundings and the environmentally friendly activities they carry out to encourage Gen Z to be willing to pay a higher price to stay at their hotels.

Keywords: Green hotels; Guests' pro-environmental behaviors; Gen Z.

Resumo

Os hoteis ecolóxicos xurdiron en resposta á demanda social (é dicir, a presión das partes interesadas) dun maior coidado do medio ambiente por parte do sector hoteleiro, como a redución do consumo de auga e enerxía e da xeración de residuos. Con todo, as iniciativas levadas a cabo polos hoteis ecolóxicos teñen un custo que adoita traducirse nun prezo máis elevado para os hóspedes. O obxectivo deste estudo era examinar as variables que determinan a disposición para pagar un prezo máis alto por aloxarse nun hotel ecolóxico entre a Xeración Z (Gen Z). O modelo probouse nunha mostra de 173 membros da Xeración Z española utilizando AMOS. Os datos obtivéronse a través dun cuestionario en liña administrado a unha mostra de conveniencia. Os resultados do estudo apoian a secuencia toma de conciencia das consecuencias-atribución de responsabilidade-norma persoal, así como a inclusión da actitude cara aos hoteis ecolóxicos como segunda variable mediadora na relación conciencia das consecuencias-norma persoal. Estes resultados teñen importantes implicacións para a comunicación da xestión hoteleira. Neste sentido, a xestión dos hoteis ecolóxicos debería destacar as cuestións medioambientais da súa contorna e as actividades respectuosas co medio ambiente que levan a cabo para animar á Xeración Z a estar disposta a pagar un prezo máis alto por aloxarse nos seus hoteis.

Palabras chave: Hoteis verdes; Comportamentos pro-ambientiais dos hóspedes; Xeración Z.
JEL classification: M31.

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1. INTRODUCTION

The hotel sector has been called into question due to the large number of resources it consumes, especially energy and water, and the large amount of waste it generates. Hotels have a higher average energy consumption than other commercial establishments (Bohdanowicz et al., 2011). According to Dascalaki and Balaras (2004), the hotel sector consumes 35% of the total energy demand in the tertiary sector. Water consumption per tourist is 3 to 4 times higher than that of residents, ranging from 100L to 200L per person per day in Europe (EEA, 2009). In addition, tourism accounts for 6.8% of total waste generation (Jacob et al., 2025). According to Ramusch et al. (2016), each tourist generates an average of 1.67Kg of waste per day. Moreover, tourism accounts for about 8% of global greenhouse gas emissions (Lenzen et al., 2018).

The growing concern about the environmental impact of hotels has given rise to several lines of research. First, some studies have focused on the promotion of pro-environmental employee behaviors as a means of reducing environmental impact in the hotel industry (e.g., Raza et al., 2021; Vila-Vázquez et al., 2023a). Secondly, from a consumer perspective, other studies have focused on the factors that condition the consumption of green hotels (e.g., Agag et al., 2020; Casado-Díaz et al., 2020; Tang & Lam, 2017) —eco-friendly hotels that proactively seek to decrease their harmful environmental impact (Han, 2015). It is in this second line that this study is focused.

A significant number of hotels carry out green initiatives (Arun et al., 2021; Han, 2020). The Report on Ecotourism in Spain 2024 (Ministerio de Industria, Comercio y Turismo, 2024), which surveyed 422 companies affiliated with *Soy Ecoturista*, indicates that purchasing local and KMO products is the most common measure (82%), followed by waste reduction (79.1%) and energy efficiency measures (75.4%). But many of these initiatives have a cost, operational, such as the consumption of local organic products, or structural, such as investment in solar panels or charging points for electric vehicles. Therefore, green hotels frequently charge higher prices to their customers (Casado-Díaz et al., 2020).

That is why it is interesting to analyze not only the consumer's intention to stay in a green hotel, but also their willingness to pay a higher price. Several authors (e.g., Tang & Lam, 2017) have highlighted the need for more research analyzing consumer decision-making in the context of green hotels.

Generation Z (Gen Z) travelers - individuals born between the late 1990s and the late 2000s (Seemiller & Grace, 2019) – are currently establishing themselves as a segment of special interest for hotel companies (European Travel Commission, 2020; Ribeiro, Costa et al., 2023; Robinson & Schänzel, 2019; Vila-Vázquez et al., 2023b). Gen Z are generally portrayed as being very concerned about environmental issues and, consequently, inclined to consume green products and services (European Travel Commission, 2020; Rasheed & Balakrishnan, 2023). According to a global online study from Nielsen, almost 75% of Millennials and Gen Z said they would be willing to pay extra for sustainable offerings (Barnes, 2018).

Despite this, studies analyzing the green purchase behavior in this cohort are very scarce, and most of the existing ones are conceptual studies (Ribeiro, Costa et al., 2023). One exception is the discrete choice experiment conducted by Fei et al. (2024) in the US. The findings of this study revealed that Gen Z were willing to pay a higher price to stay in environmentally sustainable hotels within the economy hotel category. With our study, we seek to contribute to alleviating this lack providing new evidence to consumer decision-making about green hotels in the Spanish context, which has been little studied.

Several theories have been used to understand consumer decision-making in the context of green hotels, among the most used are: the norm activation theory (Schwartz, 1977), the theory of reasoned action (Ajzen, 1985), the theory of planned behavior (Ajzen, 1991), the value-belief-norms theory (Stern et al., 1999) and the theory of social identity (Tajfel & Turner, 2004). However, as pointed out by Agag et al. (2020) and Han (2020), among others, a single theory is not enough to develop a conceptual model that explains green consumer decision-making.

As Kim (2023) indicates, to predict consumer behavior in the context of green hotels, it is essential to analyze "people's perceptions and norms of responsibility toward eco-friendliness" (p. 2), as proposed in the norm activation model. In this sense, this study suggests that the willingness to pay a higher price for staying in a green hotel is determined by the sequence awareness of consequences-ascription of responsibility-personal norm.

However, as Han (2020) points out, not all the variables that determine green purchase behavior are included in theories based on pro-social and pro-environmental motives. In particular, the relevance of the role of attitudes when explaining prosocial behavior has been amply proven (e.g., Han, 2015; Kim, 2023; Waris & Suki, 2025). Consequently, the purpose of this study was to test a model – expanding the norm activation theory to include attitudes towards green hotels — that analyzes the variables that determine the willingness to pay a higher price to stay in a green hotel among Spanish Gen Z.

This study is structured as follows. First, the theoretical framework is described, and the research model is proposed. Second, the methodology followed for its verification is described. Next, the results are explained. Finally, the findings and implications are discussed, the limitations of the study are pointed out and possible future extensions are proposed. To conclude, there is a paragraph that summarizes the study's contribution and implications.

2. THEORETICAL FRAMEWORK AND DEVELOPMENT OF HYPOTHESES

2.1. Green hotels

Over the years, the notion of green hotels has gained tremendous academic attention. Several studies have emphasized green hotels in the context of consumers' behavior (Agag et al., 2020; Casado-Díaz et al., 2020; Chung, 2020; Fei et al., 2024; Han, 2020; Rahman & Reynolds, 2019; Tang & Lam, 2017). However, majority of the literature has emanated from countries such as the US, Taiwan and Hong Kong. Han (2015) pointed out that individuals' pro-environmental behaviors varied across cultures. Moreover, Bello et al. (2023), in a study conducted using data obtained from Booking.com covering 6500 hotels across 12 touristic European cities, found that geographical context influence the ability of hotels to charge more for green hotels.

Green hotels are defined as environmentally responsible properties that implement programs to reduce water and energy use and minimize waste, while maintaining service quality (Green Hotels Association, 2014). Likewise, it is essential for consumers and firms to collaborate with an aim to reduce environmental damage caused by hotel operations without compromising on the quality services provided to consumers (Ribeiro, Seyfi et al., 2023; Rodriguez-Sanchez et al., 2025). In this view, green hotels are those which embrace environmental sustainability by efficiently using their resources such as energy, water, and materials while at the same time ensuring service quality (Han, 2015).

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Green hotels, typically worldwide, emphasize sustainable initiatives with an aim to protect the planet earth threatened. Some research demonstrates the following initiatives including energy-related sustainability efforts – for example, relying on renewable sources of energy, reduce carbon footprint, and energy-efficient consumer appliances– and material and water-saving practices – as, waste management, sustainable livelihoods, creating environmental awareness, and recycled products usage inside hotel rooms– (Chung, 2020; Verma & Chandra, 2016). Importantly, major characteristics that define green hotels include architecture design, energy efficiency, waste reduction, water conservation, environmental education, communicating environmental awareness and managerial knowledge (Erdogan & Tosun, 2009). A qualitative study undertaken by Han and Chan (2013) revealed that energy-efficient practices and eco-friendly products are the most significant features of green hotels.

From the standpoint of consumer decision-making, frequenting an eco-friendly hotel not only includes the intention to purchase, but also the willingness to pay a higher price and forego alternative products that are sometimes of better quality (Casado-Díaz et al., 2020; Dimara et al., 2017; Rodriguez-Sanchez et al., 2025). For instance, most green hotels have been shown to implement a towel or linen reuse policy, whereby, instead of washing the towels or linens every day, they wash them on an on-demand basis (Dimara et al., 2017). This may cause inconvenience to the consumer. Similarly, other common eco-friendly policies adopted by green hotels such as practices for example low-flow faucets, showerheads, and urinals can also become a source of inconvenience for consumers (Rahman & Reynolds, 2019). These trade-offs highlight the importance of understanding consumer willingness to pay more for green hotels, despite potential inconveniences.

Several theories have served as a basis for studying consumer decisions in the context of green hotels. One of the most widely used is norm activation theory (Schwartz, 1977, which forms the theoretical foundation for our model.

2.2. Hypotheses derived from the norm activation model

The norm activation model (Schwartz, 1977) was initially developed to explain altruistic behavior. However, its basic propositions are not limited to explaining altruistic behavior, but any behavior motivated by feelings of moral obligation. As a result, it has been a widely used model in the analysis of the antecedents of pro-environmental intentions and behaviors (Yan & Chai, 2021), such as the willingness to pay a higher price.

According to this theory, there are three constituent elements of pro-environmental behavior: awareness of consequences, ascription of responsibility, and personal norm. Awareness of consequences refers to "whether someone is aware of the negative consequences for others or for other things one values when not acting pro-socially" (De Groot & Steg, 2009, p. 426). Ascription of responsibility indicates an individual's feeling of responsibility for such adverse consequences for not acting pro-socially (De Groot & Steg, 2009; Han, 2015). And personal norm is defined as "moral obligation to perform or refrain from specific actions" (Schwartz & Howard, 1981, p. 191).

The central variables of the model are consolidated, however the way in which these variables are related has given rise to several interpretations of the model (De Groot & Steg, 2009; Han, 2015; Steg & De Groot, 2010). While some studies conceptualize NAM as a moderator model (e.g. Hopper & Nielsen, 1991), recent research in green hotel contexts supports a sequential mediation model (awareness → responsibility → personal norm) (e.g., Han, 2015, 2021; Kim, 2023; Waris & Suki, 2025), which we adopt here.

The norm activation model (Schwartz, 1977) posits that when people are aware of negative consequences for others or for other things, they are inclined to ascribe responsibility for the consequences to themselves. Ascribed responsibility will then trigger one's personal norm, which determines whether they should engage in a certain behavior to alleviate negative consequences (Han, 2015; Shin et al., 2018).

Several studies support the above premises taking as the result variable a pro-environmental behavior. For example, in the research carried out by De Groot and Steg (2009) about 3 studies —that considered as result variables acceptability of energy-saving, acceptability of a transport pricing policy, and willingness to take action to reduce emissions of particulates, respectively – they corroborated that personal norm mediated the influence of the ascription of responsibility, which in turn mediated the relationship between awareness of consequences and personal norm. Steg and De Grood (2010) found the same result in an experimental study where they analyze the extent to which information about the health problems related to particulate emissions from diesel vehicles impact the perception of responsibility to reduce these problems, and consequently, the feeling of moral obligation to contribute to reducing these health problems and the intention to participate in actions to decrease this emissions.

More recently, in the hotel context, several studies (e.g., Han, 2015, 2020; Kim, 2023) have highlighted the relevance for eco-friendly hotels to create an ecological image that instills environmental awareness and responsibility in guests, which can lead to guests' pro-environmental behavior, such as willingness to stay or visit a green hotel or willingness to pay a higher price for staying in a green hotel. In summary, previous studies have supported the different relationships proposed in the NAM model in other contexts, both outside (De Groot & Steg, 2009; Steg & De Groot, 2010) and within the tourism sector (Han 2015; 2020; Kim, 2023).

Based on the premises of the norm activation model and previous evidence, the following hypotheses are proposed:

H1: Awareness of consequences positively influences ascription of responsibility.

H2: Ascription of responsibility positively influences personal norm.

H3: Personal norm positively influences willingness to pay a higher price.

2.3. Expanding the norm activation model

At least, two models consider attitude to be a central element in the decision-making process: the theory of reasoned action (Ajzen, 1985), and the theory of planned behavior (Ajzen, 1991). The theory of reasoned action (Ajzen, 1985) has been widely used to explain decision-making processes in the area of consumer behavior. According to this theory, behavioral intentions are determined by two factors: namely, attitude toward performing the behavior and subjective norm (Ajzen & Fishbein, 1980). Theory of planned behavior is an extension of the theory of reasoned action, since it incorporates a new determinant of behavioral intentions, perceived behavioral control.

According to Ajzen (1991, p. 188) attitude can be defined as "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question". In this sense, the attitude towards green purchase indicates the degree to which the purchase of green products is valued positively or negatively (Han, 2020).

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Several studies have confirmed that awareness of environmental consequences and environmental concern positively influence attitudes toward eco-friendly behaviors, which in turn affect green behavioral intentions (e.g., Han, 2015, 2020; Untaru et al., 2016). In the study conducted by Han (2015), on a sample of 402 frequent travelers in the US, it was shown that the attitude toward the behavior in a green hotel context was determined by the adverse consequences for valued objects. Similarly, Untaru et al. (2016), on a sample of Romanian residents who stayed in a tourist establishment at least once in the last year, demonstrated that environmental concern positively influences attitude towards water conservation in the context of hospitality. Moreover, Han's (2020) study, on a sample of hospitality customers in Korea, testing his green purchase behavior theory revealed the impact of awareness of consequences on green purchase behavior through attitude toward green purchase and personal norm, respectively.

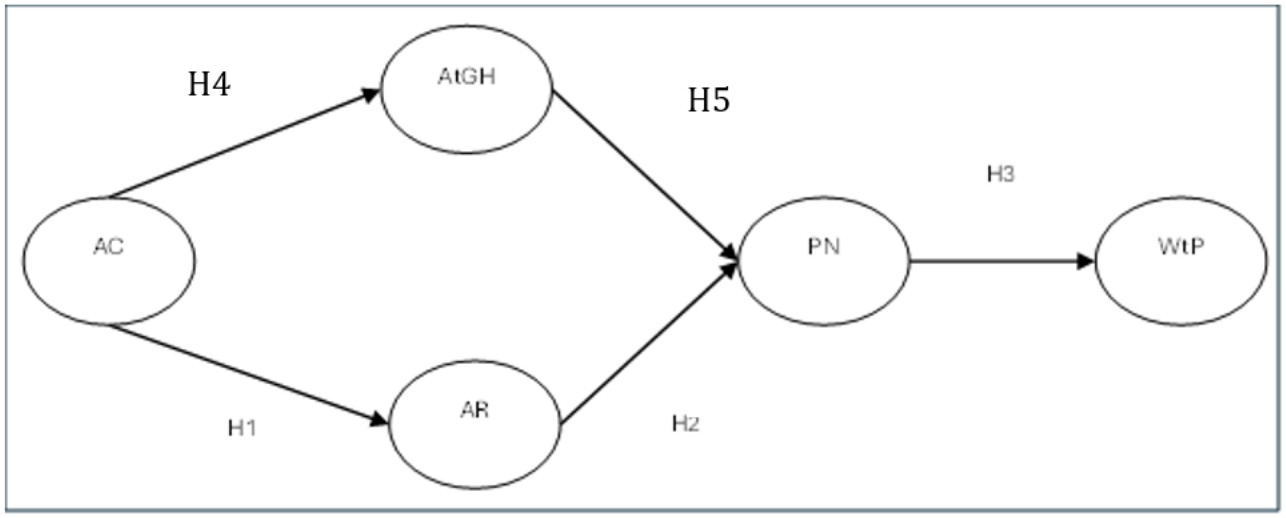
Based on the above premises and previous evidence, the following hypotheses are formulated:

H4: Awareness of consequences positively influences attitude toward green hotels.

H5: Attitude toward green hotels positively influences personal norm.

Figure 1 illustrates the proposed model.

Figure 1. Proposed model



Notes: AC = awareness of consequences; AR = ascription of responsibility; PN = personal norm; AtGH= attitude toward green hotels; WtP = Willingness to pay a higher price

3. METHOD

In this cross-sectional study, a convenience sample of university students enrolled in business degree programs was used. The study was presented during classes in various undergraduate subjects. Data collection took place during April and May 2021 via an online questionnaire, thus ensuring the voluntary nature and anonymity of the responses.

Initially, 190 responses were obtained, of which those that did not belong to Gen Z were discarded. The final sample size was 173. The average age was 19.6 years (SD=2.096), with 52% men and 48% women.

With the exception of attitude to green hotels, which uses a specific 7-point Likert scale (detailed in Table 3), all constructs were measured using a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Questions about awareness of consequences and ascription of responsibility were adopted from Han (2020). Personal norm and attitude to green hotels were measured with the moral obligation and the attitude to green hotels scales developed by Agag & Colmekcioglu (2020). Finally, to measure the willingness to pay a higher price, we used the scale adapted by Tang & Lam (2017).

The analysis of the data was carried out in two steps. First, a confirmatory factor analysis was performed to analyze the fit of the measurement model and to examine the internal consistency of each construct, the convergent validity of the scales, as well as the discriminant validity of the constructs. Secondly, the structural model was estimated to test the proposed hypothesis. The analysis was carried out with SPSS AMOS 29.

4. RESULTS

Table 1 shows the descriptive statistics, correlations and Cronbach's alpha in the diagonal.

Table 1. Descriptive statistics and correlations

Variable	M	SD	1	2	3	4	5
Awareness of consequences	3.869	1.353	(0.889)				
Ascription of responsibility	3.759	1.476	0.355***	(0.833)			
Personal norm	3.998	1.612	0.186*	0.347***	(0.927)		
Attitude toward green hotels	5.750	1.166	0.171*	0.257***	0.451***	(0.911)	
Willingness to pay a higher price	4.302	1.540	0.258***	0.344***	0.638***	0.356***	(0.920)

Notes: n=173. ***p <0.001 **p < 0.01 *p <0.05

The results of the CFA showed that the measurement model produced good fit to the data (χ^2 (109) = 141.035; χ^2/df = 1.294; CFI = 0.986; IFI = 0.986; TLI = 0.982; RMSEA = 0.041), since the CFI and TLI values are greater than 0.95 and the RMSEA value is less than 0.08 (Hair et al., 2010). Moreover, as can be seen in Table 2, the results supported the reliability of the scales, since composite reliability (CR) and average variance extracted (AVE) exceeded the recommended minimums of 0.7 and 0.5 respectively (Hair et al., 2010). With regard to convergent validity, the standardized lambda parameters were significant and higher than the minimum value of 0.5 (see Table 3). The discriminant validity of the constructs was also confirmed since the value of the squared correlations is lower than the AVE of the constructs and the confidence intervals of the correlations do not include the unit (Hair et al., 2010).

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Table 2. Overall reliability and validity of the constructs

	Awareness of consequences	Ascription of responsibility	Personal norm	Attitude toward green hotels	Willingness to pay a higher price
Awareness of consequences	CR= 0.894 AVE= 0.739				
Ascription of responsibility	SC= 0.145 (0.205;0.557)	CR= 0.843 AVE= 0.651			
Personal norm	SC=0.027 (-0.027;0.353)	SC= 0.115 (0.174;0.504)	CR= 0.931 AVE= 0.818		
Attitude toward green hotels	SC=0.031 (0.004;0.348)	SC= 0.075 (0.106;0.440)	SC= 0.201 (0.301;0.595)	CR= 0.914 AVE= 0.684	
Willingness to pay a higher price	SC= 0.048 (0.036;0.404)	SC= 0.112 (0.159;0.511)	SC= 0.458 (0.577;0.777)	SC= 0.138 (0.230;0.512)	CR= 0.927 AVE= 0.811

Notes: AVE, average variance extracted; CR, composite reliability; SC, squared correlation

Table 3. Survey questions and factor loadings

Latent constructs and their indicators	Factor loadings
Awareness of consequences (AC)	
AC1 The hospitality industry causes pollution, climate change, and exhaustion of natural resources.	0.868
AC2 The hospitality industry generates environmental impacts on the neighboring areas and wider environment.	0.901
AC3 The hospitality industry causes environmental deteriorations (e.g., solid/food waste, excessive use of energy/water).	0.807
Ascription of responsibility (AR)	
AR1 I believe that every hotel customer is partly responsible for the environmental problems caused by the hospitality industry.	0.837
AR2 I feel that every hotel customer is jointly responsible for the environmental deterioration caused by the hospitality industry.	0.887
AR3 Every hotel customer must take responsibility for the environmental problems caused by the hospitality industry.	0.670
Personal norm (PN)	
PN1 I would feel guilty if I stayed in a hotel damaging the environment.	0.832
PN2T Stay in a hotel that damages the environment would be morally wrong for me.	0.962
PN3 Staying in a hotel that affects the environment would go against my principles.	0.915

Latent constructs and their indicators	Factor loadings
Attitude to green hotels (AtGH)	
AtGH1 For me, booking a green hotel when traveling is Extremely bad (1)/Extremely good (5).	0.640
AtGH2 For me, booking a green hotel when traveling is Extremely undesirable (1)/ Extremely desirable (5).	0.789
AtGH3 For me, booking a green hotel when traveling is Extremely unpleasant (1)/ Extremely pleasant (5).	0.826
AtGH4 For me, booking a green hotel when traveling is Extremely unfavorable (1)/ Extremely favorable.	0.906
AtGH5 For me, booking a green hotel when traveling is Extremely foolish (1)/Extremely wise (5).	0.940
Willingness to pay a higher price (WtP)	
*WtP*1: It is acceptable to pay more for a hotel that engages in green practices.	0.748
*WtP*2: I am willing to pay more for a green hotel.	0.968
*WtP*3: I am willing to spend extra in order to stay at an environmentally friendly hotel.	0.967

The structural model results suggest that the hypothesized model fits the data well (χ^2 (114) = 153.725; χ^2/df = 1.348; CFI = 0.983; IFI = 0.983; TLI = 0.979; RMSEA = 0.045). Figure 1 shows the standardized coefficients of the relationships posed in the hypothesized model. To verify the support for the hypotheses the standardized betas and the associated significance were analyzed (see figure 2). Hypothesis 1 stated that awareness of consequences will positively influence ascription of responsibility. The results ($\beta = 0.387$, $p < 0.001$) confirm this. This indicates that greater awareness of consequences significantly increases participants' sense of responsibility. Hypothesis 2 is also supported as ascription of responsibility positively influences personal norm ($\beta = 0.246$, $p = 0.001$). As with Hypothesis 3, which proposed a positive relationship between personal norm and the willingness to pay a higher price ($\beta = 0.675$, $p < 0.001$). This confirms that people who feel morally obliged to stay at a hotel that does not harm the environment are more willing to pay a higher price for staying at a green hotel. The hypotheses derived from expanding the norm activation model are also supported, since the awareness of consequences has a positive impact on attitude toward green hotels (H4 $\beta = 0.185$, $p = 0.026$), and attitude toward green hotels has a positive impact on personal norm (H5 $\beta = 0.401$, $p < 0.001$).

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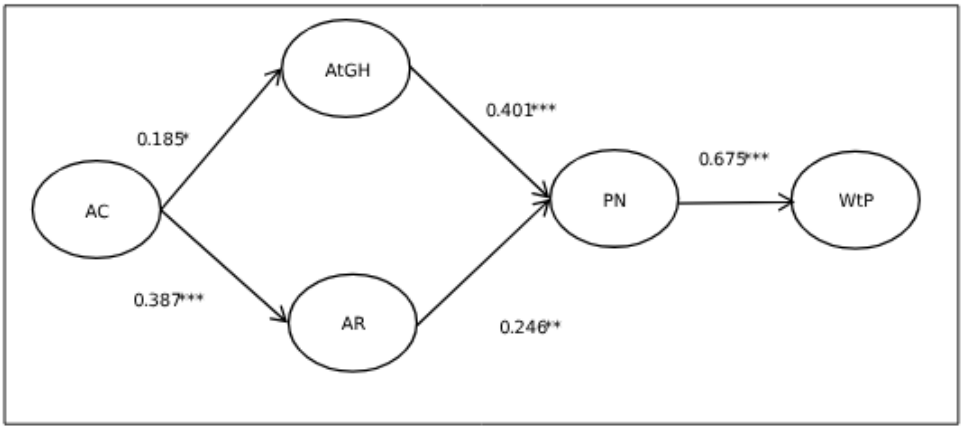
Figure 2. Results of the structural model



Notes: AC = awareness of consequences; AR = ascription of responsibility; PN = personal norm; AtGH = attitude toward green hotels; WtP = Willingness to pay a higher price; ***p < 0.001 ** p < 0.01 * p < 0.05

Furthermore, the significance of the indirect effects was calculated. It was founded to have a positive and indirect effect of awareness of the consequences on willingness to pay a higher price through the ascription of responsibility and personal norm (β = 0.062, p= 0.007). In addition, the results showed a positive indirect effect of awareness of consequences on willingness to pay a higher price through attitude toward green hotels and personal norm, is also supported (β = 0.049, p= 0.038). Taken together, the analysis of the full model revealed an indirect effect of awareness of consequences on willingness to pay a higher price through ascription of responsibility, attitude toward green hotels and personal norm (β = 0.111, p= 0.004). This model has a high explanatory power, explaining 45.6% of the variance in willingness to pay a higher price and 23.5% in personal norm.

Even among those who defend the norm activation model as a mediation model, there is a dual current: those who interpret it as a sequential mediation model and those who consider that both awareness of consequences and ascription of responsibility are direct antecedents of personal norm, which precedes pro-environmental behavior. For this reason, we propose an alternative model, considering the direct influence of awareness of consequences on personal norm. The comparison of this model with the initially proposed one implies a significant worsening of its goodness-of-fit indices (see Table 4). This supports the approach of the norm activation model as a model of sequential mediation.

Table 4. Model comparison

Models	χ^2	df	CFI	IFI	RMSEA	$\Delta\chi^2$	df	p
Proposed model	153.725	114	0.983	0.983	0.045	0.015	1	ns
Alternative model	153.710	113	0.982	0.982	0.046			

5. DISCUSSION AND CONCLUSIONS

The purpose of this study was to test a model that analyzes the variables that determine the willingness to pay a higher price to stay in a green hotel among Gen Z. Our findings

support the norm activation model as a sequential mediation model. That is to say, the effect of awareness of consequences on the intention to pay a higher price is produced through the ascription of responsibility and personal norm. When guests are aware of the consequences of their behavior, they feel responsible, which increases their moral obligation and motivates pro-environmental actions. This finding aligns with previous studies (e.g., Han, 2015, 2020; Kim, 2023).

The results of our study also support the idea that the effect of awareness of consequences of behavior is not only produced through the attribution of responsibility, but also through the attitude towards green consumption. When hotel guests are aware of the impact of their behavior on the environment, their attitude towards green hotels will improve and, consequently, their feelings of moral obligation will be increased. In turn, this feeling of obligation will promote a greater willingness to pay more to stay in a green hotel. This result is in line with that of Han (2020).

Together, our study provides new evidence of the key role of personal norm in promoting pro-environmental behavior among hotel guests in the Spanish context. Although there was previous evidence of the relevance of the moral factor in green consumer decisions (e.g., Han, 2015, 2020; Han et al., 2023; Kim, 2023; Shin et al., 2018; Yan & Chai, 2021), these studies were carried out in the US, Korea, Thailand and China; and as Han (2015, p. 174) indicates, "individuals' proenvironmental behavior can differ across national cultures".

Moreover, this study improves understanding of Gen Z's purchasing behavior, a cohort of special interest to hotel management (Vila-Vázquez et al., 2023b; European Travel Commission, 2020; Ribeiro, Costa et al., 2023; Robinson & Schänzel, 2019). As Monaco (2018) highlighted Gen Z "will be the most active players in the tourism market" (p.9). In accordance, "understanding the interests and motivations of Gen Z'ers in terms of their hospitality choices is essential for the management of hotel companies, and for them to be able to implement strategies that guarantee their survival and growth" (Vila-Vázquez et al., 2023b, p. 122).

Despite its relevance, studies examining the variables that lead Gen Z to be willing to pay a higher price for green hotel accommodations are practically nonexistent. One exception is the experimental study by Fei et al. (2024), who found that Gen Z were more willing than other cohorts to pay more for a green hotel within the budget hotel category. With our study, we aim to help fill the gap in research on this cohort.

The results of this study highlight the importance of hotel managers considering personal norm, attitudes towards green hotels, the ascription of responsibility and awareness of the consequences when analyzing guests' willingness to pay more to stay in a green hotel. As global environmental awareness rises, hotels adopting green practices are more likely to gain competitive advantage, particularly among Gen Z, who tend to be more environmentally conscious (Fei et al., 2024). Consequently, hotel management should emphasize these aspects when communicating its offers.

Hotel management could try to promote guests' ecological problem awareness to indirectly enhance their willingness to pay a higher price to stay in a green hotel. For example, hotel management could promote awareness of the environmental problems faced by the destinations where the hotels are located, such as water scarcity, waste and high energy consumption, through their social media accounts, focusing their efforts on those networks mainly used by Gen Z, such as Instagram. In this way, guests are more likely to be willing to pay a higher price to compensate for the investments made by hotels to minimize such consumption and waste, for example, automatic lights, hand dryers, etc.

It is also vital that hotels make their environmentally responsible practices visible (Han, 2015). For example, it is important that hotel restaurants advertise that the food they serve

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is sourced from local suppliers and/or organic farming, and that they specify the reduction in their carbon footprint that this policy has enabled. Also, if they have a policy of only changing towels when the customer requests it, it is relevant that the customer is aware of the reduction in water consumption achieved by this practice and the effect that this practice has on the environment.

Obtaining certifications that prove that products are environmentally friendly has become an important distinguishing feature that allows companies to set higher prices than those of their competitors (Valenciano-Salazar et al., 2025). Specifically, achieving a green hotel certificate improves confidence in the environmentally responsible practices carried out and helps differentiate hotels, encouraging guests to pay a higher price to stay there (Arbelo et al., 2025).

Likewise, hotels must train their frontline employees to convey firsthand both the environmental problems that need to be addressed, and the environmentally friendly policies implemented by the hotel. Sponsorships and other partnerships with NGOs and associations that promote environmental protection can also be effective strategies for raising awareness of the consequences among potential guests.

In addition, guests' experiences during their stay can be designed to trigger a sense of moral obligation. For example, involving guests in practical, environmentally friendly activities such as tree planting, or guided tours that highlight the fragility of the local ecosystem can make the environmental impact of individual behavior more tangible and relevant. These immersive experiences could foster a personal connection with sustainability and increase a sense of responsibility, making guests more willing to pay a higher price to stay at an eco-friendly hotel.

Despite its contributions, this study has its limitations. Firstly, this study has focused on a sample of Gen Z in Spain which precludes the generalization of results. Future studies in other cultural contexts are needed, since some studies (e.g., Gregory-Smith et al., 2017; Shehawy et al., 2024) demonstrated the existence of cross-national differences in customers' willingness to pay a higher price for staying at a green hotel. Gregory-Smith et al. (2017) found that the background model they proposed for the variable willingness to pay a higher price only worked in 20 of the 28 EU countries analyzed, with Spain being one of the exceptions. They also reported that countries with lower levels of uncertainty, tolerance and individualism showed greater willingness to pay a higher price for environmentally-friendly products.

Likewise, future studies could analyze whether the proposed model is also applicable to other cohorts. Specifically, it would be interesting to analyze whether the proposed model works equally well among millennials, who account for a significant portion of hotel spending.

Secondly, all the data comes from the same source. Although common method bias is rarely serious enough to jeopardize the validity of the results (Spector, 2006), to reduce it, the recommendations of Podsakoff et al. (2003) regarding questionnaire design were followed. Future studies could try to obtain data on the willingness to pay more for staying in a green hotel from another source, for example, from frontline employees in the hotel sector.

Finally, future studies could benefit from adopting other methodological designs. For example, longitudinal studies would allow verification if the high willingness to pay translates into actual long-term behaviors. Moreover, future studies could employ mixed-method approaches or experimental designs to complement quantitative data with qualitative insights from in-depth guest interviews. It would also be interesting to conduct experiments analyzing how storytelling and ethical narratives might enhance guests' commitment to pro-environmental behaviors.

In conclusion, this study tested a model—which extends norm activation theory to include attitude toward eco-friendly hotels—that analyze the variables that determine the willingness to pay a higher price for staying at a green hotel among Spanish Gen Z guests. In doing so, it provided new evidence on consumer decision-making in green hotels in the Spanish context, which has been little studied, and on a sample, Gen Z, that is nearly unexplored. The results show the relevance of awareness of consequences as a variable that initiates the sequence facilitating the willingness to pay a higher price. Consequently, this study proposes several practical actions for hotel management to communicate to Gen Z both concern for the environment and the actions taken by hotels to mitigate negative effects. By promoting a willingness to pay a higher price, these actions contribute to the survival and growth of the green hotel sector and, indirectly, to environmental sustainability.

Author contributions

Conceptualization, V.-V.G., B.B. and M.F.N.; Methodology, V.-V.G. and B.B.; Formal analysis: V.-V.G.; Data Curation, V.-V.G. and B.B.; Writing - Original Draft Preparation, V.-V.G., B.B. and M.F.N.; Writing - Review & Editing, V.-V.G., B.B. and M.F.N. All authors have read and agreed to the published version of the manuscript.

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