

The Impact of Consumer Environmental Consciousness on Hotel Consumption Intention: A Case Study of Democratic Republic of Congo Consumers

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Abstract

The rising interest in "green" hotels is indicative of a broader trend toward eco-consciousness in the hospitality sector. Environmental concerns are currently capturing the interest of Congo's academics, businesses, and governments. Sustainable development is seen to necessitate this. The study looked at how buyers' beliefs, realistic objectives, money, and the hotel's responsibility affected their propensity to spend more for eco-friendly hotels. The purpose of this research was to identify the factors (such as consumer awareness, environmental control policies, and consumer behavior and preferences) that affect the amount that guests are prepared to pay for environmentally friendly hotel rooms. The investigation, which took place in the DRC, used a quantitative approach by analyzing data obtained from 700 hotel visitors using regression analysis.

This study contributes to the literature on sustainable tourism by shedding light on the variables that influence financial backing for environmentally conscious hotel projects. It also lays the groundwork for further research, especially in understudied areas like the DRC. There was a strong correlation between environmental consciousness and the results showing that consumers' perceptions of their own efficacy significantly impacted their norms and intentions to do positively. There was a negative moderating effect of perceived price, an external cost, on the link between consumers' behavioral intentions and their personal norms.

Keywords: *Consumer's willingness to pay for eco-friendly hotels, Environment, Sustainable Development, Planned Behavior*

Date of Submission: 03-09-2024

Date of Acceptance: 13-09-2024

I. Introduction

1.1. Research Background

Adapting to environmental concerns has become more of a priority for hotels and the larger hospitality industry in recent years, both to rising client and industry demands as well as new regulations and laws (Chan and Hsu 2016). Customers' concerns about hotels' negative effects on the environment have recently drawn the attention of the hospitality industry (Chen and Peng, 2012; Jones et al., 2014). The current study aimed to investigate how visitors' intentions to stay at eco-friendly hotels are formed, in response to the research goals mentioned earlier. To be more precise, we sought to broaden the MGB by integrating its framework with environmental consciousness, perceived efficacy, environmentally conscious conduct, and environmentally conscious recognition. Research by Chen and Tung (2014), Han (2015), and Han et al. (2010) shows that customers' desires for eco-friendly accommodation have skyrocketed in the last few decades. Among the most pressing concerns facing the hotel sector worldwide is unquestionably sustainability (Jones et al., 2014). To stay competitive or gain an advantage in the lodging market, hotels must reduce their environmental impact through greening their operations. This is especially important as today's customers are more environmentally conscious and are willing to change their consumption habits. The hotel business has had to implement environmental sustainability management strategies to improve environmental efficiency and stay ahead of the competition.

One industry that uses a lot of water and energy and produces a lot of greenhouse gases is the hotel industry. According to research, hotels' excessive consumption of natural resources accounts for 75% of their negative environmental impacts. However, there has been minimal research into the factors that influence hotel customers' environmentally conscious purchasing decisions and actions, including their level of environmental consciousness, their perceptions of the effectiveness of eco-friendly practices, and their reputation for being environmentally conscious. Furthermore, no study has yet tried to incorporate these crucial elements into the MGB's initial design. The theory's volitional, non-volitional, motivational, emotional, and automatic processes must be extended to include these relevant variables if we are to gain a better understanding of how hotel guests

make environmentally conscious decisions. A growing number of hotels are embracing proactive strategies for environmental management to gain a competitive edge. Hotel chains that prioritize environmental sustainability in their planning and operations are known as "green hotels," according to research by Barber (2014) and Han et al. (2011).

Congo began to adopt the idea of environmental protection measures for hotels in the 1990s, with the "green action" spearheaded by hotels in major towns like Kinshasa that had a history of foreign investment. While some hotels are taking part, it's still not widely adopted, and there aren't many green initiatives underway (such as cutting back on certain materials' consumption or solid waste production, for example). The hotel's environmental protection measures aim to provide customers with clean, healthy, safe, and comfortable products and services while also addressing issues like food safety, disinfecting supplies, controlling fires, public safety, and emergency preparedness. Additionally, the management of the hotel should pay attention to reducing resource consumption, making reasonable and effective use of resources, and minimizing harm to the environment in their operations (Baltar and Bunet, 2012; Bandura, 2006; Bake et al., 2014; Chen and Peng, 2012). In today's world, the old-school approach to hotel environmental protection is not cutting it anymore. In order to keep up with the times and meet the demands of new developments, hotels must adopt environmentally conscious practices. This will have multiple benefits, including increased brand charisma and overall enterprise competitiveness. As a result, it is critical to study how hotel guests' attitudes and behaviors vary in relation to their perceived consumption values (PCVs).

1.2. Significance of the research

This research on the effect of eco-conscious consumers on hotel spending intentions in the DRC has far-reaching implications for many fields, including academia, the hotel industry, environmental policymaking, and the larger social movement towards sustainability. Along with economic progress comes the emergence of environmental challenges, which impact humans to varying degrees. The development of renewable resources and the preservation of existing ones have recently emerged as global concerns. Consequently, in the context of DRC, the consumers' intention to visit a green hotel is influenced by PCVs, which in turn are influenced by guests' PEC and PEK. This study aims to shed light on the role of PCVs in this nexus, so that managers can develop marketing strategies that cater to their guests' needs and increase their demand for eco-friendly products and services. With this knowledge in hand, many shoppers are looking for eco-friendly options and are willing to pay a premium for them because they care about the planet.

1.3. Research Aim

Through the three intermediary variables of behavior attitude, subjective paradigm, and behavior control, this paper's results demonstrate that Congo green consumers positively affect consumers' consumption intention to hotel environmental protection measures. By addressing 1) how does environmental obligation influence the hotel selection process among DRC consumers? 2) Are DRC consumers willing to pay premium for hotels that adopt environmentally friendly practices? This study intends to add more literature to the existing body of knowledge.

II. Literature Review

2.1. The Theory of Planned Behavior

In the first TPB model (Ajzen, 1991), social norms referred to the things that were liked or disapproved of by important persons in a person's life, like their family and friends (subjective norms). According to Ajzen (1991), subjective standards are important for understanding decision making. However, Conner and Armitage (1998) argued that the idea was too vague to be useful for explaining anything. As an example, Wang Xiu (2014) examined prior planned behavior studies and discovered that green consumption—which includes green housing, green food, and transportation—is heavily influenced by this approach. So, norms should be defined more broadly to include both what is commonly done (subjective descriptive norms) and what these important people favor or do not support (subjective injunctive norms; Ravis & Sheeran, 2003).

De Leeuw et al. (2015) notes that "Fishbein and Ajzen formally added descriptive norms to injunctive norms as a second component of subjective norms" in 2010, according to their research (p. 129). According to other research that has utilized the TPB model, such as De Leeuw et al. (2015) and Onwezen, Bartels, & Antonides (2014), descriptive norms do influence behavior. Unfortunately, the TPB model, which incorporates subjective descriptive standards, has not been investigated in the context of green hotels yet. The product of two metrics—the capacity of factors to facilitate or obstruct the execution of behavior (P) and the probability of such factors occurring (C)—forms control beliefs, which are beliefs that make up perceived behavioral control. As direct antecedents of behavior and behavioral intention, P and C are commonly utilized in planned behavior theory to quantify perceived behavioral control. Scholars have put TPB through its paces since its creation,

conducting numerous tests and applications (Darnall and Edwards, 2006; Di Pietro et al., 2013; Bagozzi and Yi, 1998).

2.2. Environmental Consciousness on hotels (Green Hotels)

ERPs, or environmentally responsible practices, include things like sustainable environmental standards, regulatory orders, best environmental protection measures, environmental protection labels, EMSs, and environmental indicators. Adding an economic perspective to the definition of green marketing, Dolnicar et al. (2008) posits that the rise of green marketing methods is driven by the marginal value of consumers and society. According to environmental and ecological economists, green products are more valuable than regular products due to resource scarcity. Consumers also more widely accept green marketing methods (Dunlap and Jones, 2002). The green marketing strategy places an emphasis on the positive impact that marketing may have on society and the environment. Companies are shifting their focus from short-term profit maximization to the long-term development of both their own businesses and society, with the goal of attaining sustainable development through marketing (Biswas and Roy, 2016; Doran et al., 2016; Bloemer and de Ruyter, 1998). "Disposable products reduction, including whether hotels promote sheet reduction, reduce the frequency of towel replacement, and provide disposable toiletries such as toothpaste and toothbrush," is how the Environmental Protection Administration (EPA) of Taiwan describes green hotels and their practices. Other criteria include resource recycling and other similar initiatives (Bloom and Sevilla, 2004; Bohdanowicz, 2005; Briggs et al., 2011).

Green hotel certifications are categorized by the Green Hotel Association based on the following: technology, components, consumers, neighborhoods, water resources, data, and items recycled (Bohdanowicz, 2006). Products that the hotel certifies as meeting environmental criteria are used in its tours, attractions, and lodgings (which include hotels, resorts, permanent campgrounds, campers, and travel trailers). Hotel guests' perspectives on eco-friendly initiatives According to the available literature, guests see hotels' efforts to preserve the environment in a favorable light. Most guests are supportive of hotels' efforts to reduce their environmental impact, according to research by Bohdanowicz (2006).

More than half of the Dalton guests polled in the study had a favorable impression of the hotel's use of green energy. According to Bonilla-Priego et al. (2011) Researchers in India looked at customer sentiment and actions related to green practices in the hospitality sector and discovered that eco-conscious travelers might put pressure on hotels to go green, but most customers want hotels to be green without sacrificing service quality. Most customers approve of and acknowledge the hotel's efforts to conserve the environment, on the assumption that service quality will not be compromised (Boiral, 2011; Broberg, 2010; Bruns-Smith et al., 2015). To help operators deliver high-quality services while maintaining sustainable operations, the UK government created the Green Tourism Business Scheme (GTBS) in 1997 (Castro et al., 2016).

2.3. Green practices and green image in hotels

Businesses demonstrate their concern for the environment by voluntarily implementing ecological efforts through green commitments (Castro, Amores-Salvado, & NavasLópez, 2016). Environmental certification programs are a prominent manifestation of this eco-friendly dedication. Tan Jinfeng (2017) looked at how guests felt about the hotel's eco-friendly policies and whether they planned to pay for them. Customers of hotels are in favor of energy conservation and environmental protection measures when such measures are unrelated to their comfort level during their stay. However, when consumers are confronted with measures that will impact their comfort level, their level of support decreases (Cerbu et al., 2016). Customers in the Congo who are environmentally conscious and who value energy efficiency may not be ready to pay a premium for a hotel's green initiatives, but decision-makers who care deeply about the impact of their stay at a given establishment are willing to shell out more cash for such perks.

If the hospitality industry is serious about appealing to the growing number of eco-conscious consumers who value and are prepared to pay a premium for environmentally friendly products, it must ensure that its properties have the appropriate environmental certifications (Chen & Tung, 2010). In comparison to a non-certified hotel, an environmentally certified one prioritizes energy efficiency and reduction, reuse, and recycling (the three Rs) (Gill, Barr, & Ford, 2005). Li Chao (2018) examined the perception and intention of consumers about low-carbon consumption using Hangzhou tourists as an example. The author built the influencing factor model of tourists' low-carbon consumption intention based on the theory of planned behavior and added personal consumption values as the influencing factor of low-carbon consumption perception. Customers' low-carbon consumption intentions are influenced by their perceptions of revenue, cost, and trust, as well as by their personal consumption values and the selectivity of low-carbon products (Chausson et al., 2019). Additionally, customers' low-carbon consumption intentions are influenced by their individual differences. According to Chou (2014), who conducted an empirical study on environmental protection measures in

Taiwanese hotels, the theory of planned behavior provides a solid forecast for how consumers in Taiwan intend to use these measures.

According to Darnall and Sides (2008), environmental certifications can boost environmental performance by directing more attention towards environmental management and improving internal oversight of environmental performance. Finally, research into planned behavior theory has shown that it is applicable to many areas of consumer research, such as hotel environmental protection initiatives, and that prior research has shown that behavior intention is a better predictor of actual behavior than other variables (Englewood et al., 2016; Esparon, Gyris & Stoeckl, 2014). Several green hotels are actively seeking out and implementing the most effective ways to demonstrate their dedication to environmental preservation (Bruns-Smit et al., 2015; Faqih, 2014; Font, 2002; Fornell & Lacker, 1981; Gao et al., 2016). These include solar panel installations, polyester window coatings, pool heating system updates, gas power for laundry and catering, and water-efficient appliance replacements.

III. Research Methodology

3.1. Data and Data Collection Method

In this study, three hotels—one each in the eastern Virunga National Park, the western Bukavu, and the western capital Kinshasa—are being examined because they had already obtained green certification from the Surabaya government. Primary data collected through questionnaires is known as research data. Guests of those three hotels served as the study's respondents. The surveys are disseminated on the internet. There were 700 responses from the first responders who filled out the surveys. The convenience sampling method was used in this investigation. Owners who were willing to participate were chosen because most hotel managers are quite protective of their guests' personal information. After the first interview, three hotels expressed their willingness to participate in the poll. After tidying up the room, housekeepers brought out the survey form, which visitors were asked to fill out, with the condition that their privacy would be preserved and that they would not be disturbed. A green air conditioner boasting energy savings and environmental preservation was chosen as the eco-friendly product for the survey.

Concentrating on HVAC goods was a good idea for three reasons. After then, the researcher picked the incoming responses and removed 890 of them because the questionnaires were not filled out completely. There are a total of 700 replies that can be tested as respondent data. Questionnaires are distributed using the snowball sampling method. A non-probability sampling method wherein the samples exhibit uncommon characteristics is called snowball sampling or chain-referral sampling. Referral sampling is a method of gathering research samples by enlisting the help of current subjects. When conducting exploratory, qualitative, or descriptive research with small sample sizes, respondents who are difficult to reach, or who demand a high degree of trust to begin contact, snowball sampling can be an effective methodology (Baltar & Brunet, 2012; Geerts, 2014; Ger & Belk, 1996). To illustrate the point, gathering primary data sources for a study on elite country club members' customer satisfaction levels would be next to impossible unless one of the members volunteered to speak with you one-on-one and gave you their contact information. Choosing the approach that reduces risk would be ideal. Asking people to name additional powerful people in their society is one way a researcher studying informal leadership trends might do this.

3.2. Questionnaire

The research used a questionnaire sampling method. In order to guarantee that the facts collected, and the empirical deductive process are trustworthy, legitimate, and scientific in character (Gilg, Barr & Ford, 2005). In order for the statistics to accurately portray how eco-awareness affects the hotel's consumption intention. Make it possible for the study model's explanatory and predictive mechanisms to produce meaningful findings, The tenets of this work are consistency, clarity, objectivity, and reason (González-Benito & González-Benito, 2005). Organize the survey's layout, The study primarily examined six aspects of environmental consciousness, behavior attitude, subjective paradigm, behavior control, hotel consumption intention, and environmental protection behavior using valid questionnaires collected from WYN hotels (high-end, hotel consumption intention) and QT hotels (economy, hotel consumption intention).

Consumer Belief Levels, Enterprise Obligation, Consumer Behavior Patterns, and Individual Background were some of the topics covered in this research. Using a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), the questionnaire's questions are developed from the variables utilized by Wen & Hwang (2018). The study used a Likert scale to measure six variables: green consumers in Congo as an independent variable, environmental behavior as an adjustment variable, behavior attitude as an intermediary variable, subjective paradigm as a behavior control variable, and hotel consumption intention as the dependent variable. A substantial portion of the study's assessed variables are derived from established, mature scales in the literature; these scales are then adjusted following the requirements of the current investigation (Hair et al.,

2013). Rather than being independent variables, financial discounts and environmentally friendly alternatives served as moderators, influencing the relationship between exogenous structures and incentive mechanisms. Twenty items were evaluated using the Likert scale with five points. The questionnaire items in this study were assessed using a 5-point Likert scale, which ranges from strongly disagree to agree strongly. The items were modified from previous studies and relevant literature to meet the topic and setting of this research, ensuring the survey's validity. The description of the odd item is favorable; a higher score indicates a more environmentally friendly attitude. On the other hand, the even item has the opposite effect; a lower score indicates a less environmentally friendly attitude.

3.3. Data Analysis

Using SPSS software, the study used the OLS regression model to test whether independent variables have a significant impact on the study's dependent variables. This data analysis technique has been proven to provide better result on small samples. The study used the following regression model:

Where the dependent represents the hotel's consumption intension which, according to this study, is measured by the consumers' willingness to pay. represents the y-intercept or the autonomous level of a consumer's willingness to pay when all the other factors are zero. represents the independent variables used in this study. And finally, the error term that takes care of any other variables that affect consumer's willingness to pay but are not included in the model is represented by the error term (.

3.4. Reliability and Validity Test

Analyzing the stability, consistency, and reliability of measurement results—the extent to which repeated measurements of the exact thing yield consistent results—is what reliability analysis is all about. You may find out how reliable the research variables are by looking at the outcomes of composite reliability and Cronbach's alpha. All variables have Cronbach's alpha values greater than 0.60 and composite reliability values greater than 0.70, as shown in the table above. Therefore, it is safe to say that all of the study's variables were reliable (Han et al., 2010). Results are more consistent, stable, and dependable when the dependability coefficient is high. When evaluating data quality, one frequent indicator is the reliability coefficient.

IV. Data Analysis and Results

4.1. Summary Statistics

The summary statistics from the questionnaire highlight the demographic characteristics of the hotel guests who participated in the study. The data, based on 132 valid responses, provides insights into the gender, education level, and monthly income of the respondents.

Q2. Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	378	54	54	54.0
	Female	322	46	46	100.0
	Total	700	100.0	100.0	

Q3. Education Level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school or lower	37	5.3	5.3	5.3
	College	20	3.0	3.0	8.3
	Degree	414	59.1	59.1	67.4
	Postgraduate	229	32.6	32.6	100.0
	Total	700	100.0	100.0	

Q4. Monthly Income					
		Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Below \$500	12	1.5	1.5	1.5
	\$1001 - \$2000	344	49.2	49.2	50.8
	Above \$2000	344	49.2	49.2	100.0
Total		700	100.0	100.0	

Table 1: Summary statistics

As shown in table 1 above, from gender distribution, most respondents were male, accounting for 54% (378 respondents), while females represented a smaller fraction at 46% (322 respondents). This significant disparity suggests a gender imbalance in the survey's participant pool, which might influence the results and interpretations related to environmental consciousness and hotel selection behaviors.

Additionally, the table above shows that from education levels, the respondents hold higher educational qualifications. Specifically, 59.1% (414 respondents) possess a degree, and 32.6% (229 respondents) have postgraduate qualifications, cumulatively making up 91.7% of the sample (see appendix 1). This indicates that the study primarily captured the opinions of well-educated individuals, which could suggest their responses are more informed or aware of environmental issues compared to the general population. Only a small portion of the respondents reported having high school or lower (5.3%) and college (3.0%) as their highest education levels, implying limited representation from these groups.

The monthly income data reveals a bifurcated economic profile among the respondents: 49.2% (334 respondents) reported earning between \$1001 and \$2000, and an equal percentage reported earnings above \$2000, with only a minimal 1.5% (12 respondents) earning below \$500. This suggests that the survey reflects the views of the middle to upper-income brackets, potentially skewing the insights towards the preferences and behaviors of financially better-off individuals.

Gender vs Willingness to pay more at Eco-friendly hotels

The crosstabulation between respondents' gender and their willingness to pay more for a stay in an eco-friendly hotel reveals interesting insights into the attitudes towards environmentally responsible travel choices among the participants as shown in Appendix 2.

When we looked over the replies closely, we saw that most people, male and female alike, were willing to pay a premium for environmentally conscious lodgings. The government personnel make up the smallest fraction, accounting for 2.3% of the overall sample. The section with the highest monthly income, ranging from 3,501 to 5000 yuan, is the individuals. Of the 700 people who took the poll, 94.9% were familiar with the concept of hotel consumption intention, while 5.3% were unaware of environmental measures. The lowest monthly income bracket is 2001~3500 yuan, at 44.2%. Out of 378 men surveyed, 320 agreed (150 agreed and 170 strongly agreed) that environmentally friendly products should cost more. This suggests that male respondents have a strong preference for being environmentally responsible. However, fifteen out of fifteen female respondents also said they would pay more, with seven of them strongly agreeing and five saying they agree, and three saying they weren't sure either way, the same can be seen in the figure in Appendix 3.

The fact that just a small percentage of respondents (23 men) chose "Strongly disagree" demonstrates that most people are against the idea that hotels should charge more for eco-friendliness. The percentage of responders who were undergraduates was 24.4%, graduate students were 26.0%, and the rest were below the undergraduate level. The bulk of the participants (49.7%) reported an average monthly expenditure of 2000\$ or more, while a small percentage had consumption below this range (26.9%), and a small percentage had consumption beyond it (23.4%). Additionally, the 'Neutral' position was only slightly preferred; 100 respondents (35 men and 65 females) had no opinion, implying that most participants have already developed views regarding the importance of environmentally conscious hospitality practices (See Appendix 4).

When we compare monthly income with the statement "Environmental education influences my hotel choices," we can observe that different replies are displayed in the first chart. It appears that those with incomes below \$500 have mixed feelings about how environmental education affects their hotel selections. Some of them agree, while others are neutral. Businesses and government agencies made up the bulk of the survey takers, with 61.6% of the total sample. The demographics of the survey participants are diverse, universal, and highly representative, which means that the results are more likely to be accurate. Environmental education does impact hotel selections, according to most those earning \$1001-\$2000 and those earning more than \$2000. Customers have expressed intentions to carry their own toiletries, conserve water and electricity, and cut down on solid waste in the future. Most QT hotel guests have pledged to reduce their use of single-use toiletries and

have expressed their approval of the company's new business strategy. Because of their greater financial means, this data implies that high-income travelers are more inclined to think about the hotel's impact on the environment.

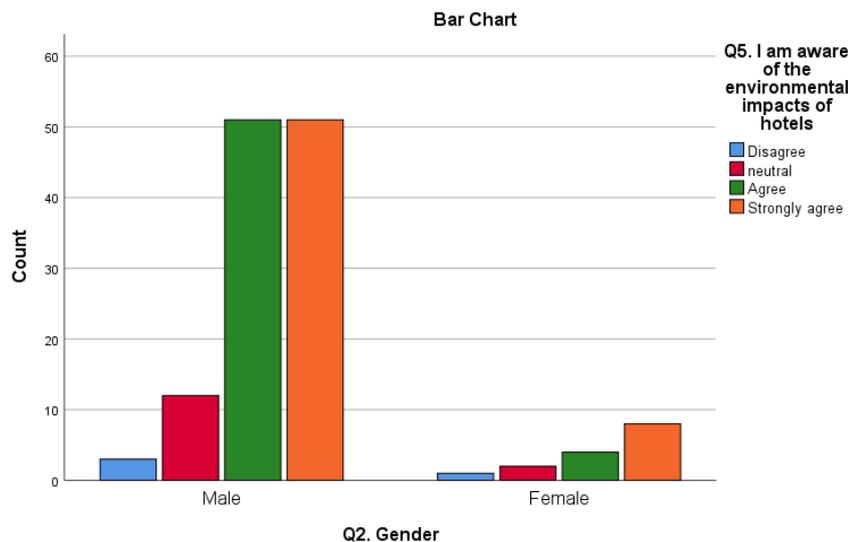


Figure 1: Gender vs Awareness of hotel's environment impact.

In the second graph, we see how different genders connect to the statement "I am aware of the environmental impacts of hotels." Most males are aware of the potential environmental impacts of hotels because most of them either agree or strongly agree. Eco-friendly hotels strive to improve energy efficiency, conserve water, use environmentally friendly products, manage waste, control noise pollution, handle hazardous waste, manage human resources, collaborate with local groups, and adhere to environmental regulations. There were fewer female responders overall, but those who did express some level of agreement for those who disagreed.

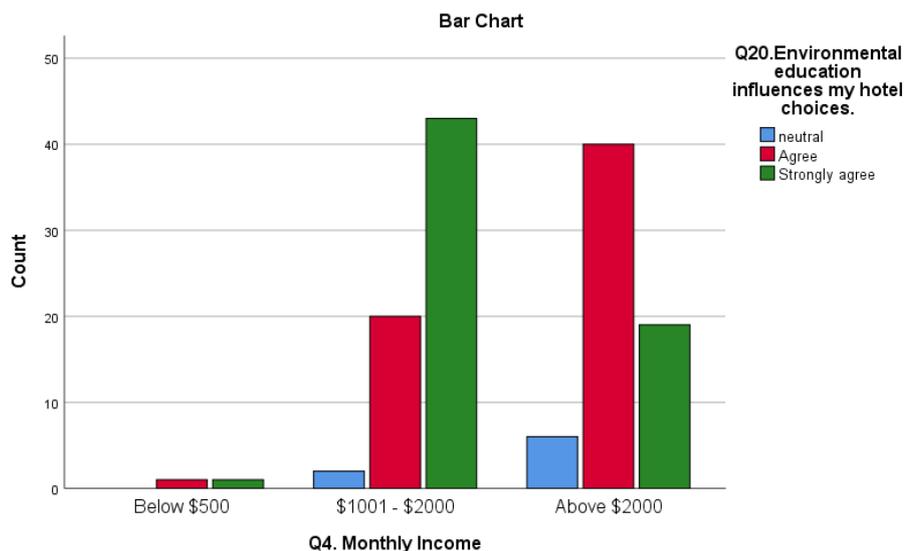


Figure 2: Gender and Environmental Education

"I regularly seek information about eco-friendly practices." is part of the third chart that compares gender. A total of 428 out of 700 questionnaires (or 95% of the total) were recovered using the approaches. There was an effective rate of 92.5%, with 396 being legitimate surveys. The collected surveys can then be used to examine the next empirical data. To stay competitive or gain an advantage in the lodging market, hotels must reduce their environmental impact through greening their operations. This is especially important as today's customers are more environmentally conscious and are willing to change their consumption habits. It bears repeating that most men either agree or strongly agree, suggesting that they are keen to learn more about green

living. When it comes to the psychological stage of environmental responsibility and green consumption intention, these findings suggest that consumers may be unaffected by economic factors. However, when it comes to the psychological stage of environmental concern and green consumption intention, consumers will take economic factors into account. That might be since people who care about the environment must figure out how much work they need to put in to address environmental issues. Some women are ambivalent or disagree, while a smaller percentage agree.

4.2. Correspondence plot

The correspondence analysis chart below was used to show the relationship between two categorical variables in this study. For example, the chart below shows the relationship between respondents' education levels (Q3) and their willingness to pay more for a stay in an eco-friendly hotel (Q9).

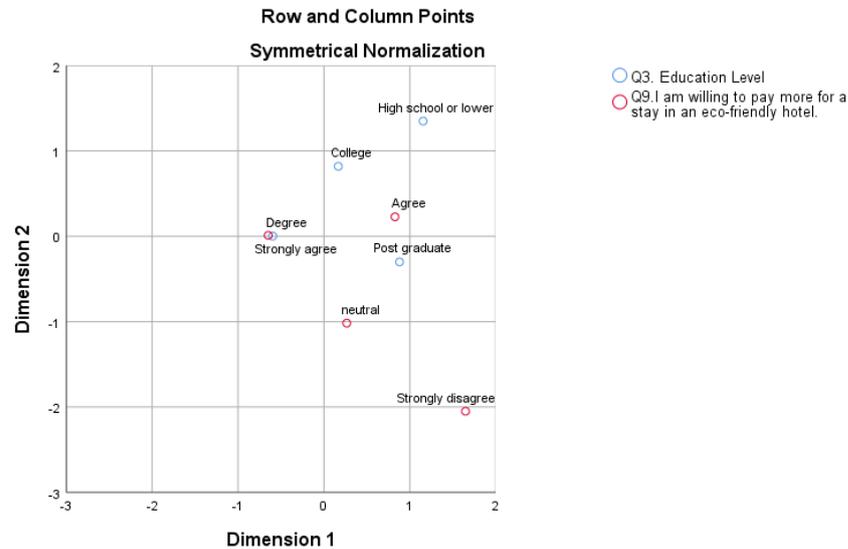


Figure 3: The relationship between respondents' education levels (Q3) and their willingness to pay more for a stay in an eco-friendly hotel

The closer two points are on this kind of graph, the greater the relationship between them. By observing the plot, we can observe that 'Postgraduate' and 'Strongly agree' are rather near on the right side of the chart. This indicates that those with postgraduate degree are more inclined to strongly agree that they would be prepared to pay a premium for a stay at an environmentally conscious hotel.

The fact that "Degree" is so close to "Agree" suggests that college graduates are generally in favor of paying a premium for environmentally conscious lodgings, while they may not be as adamant about it. Not only can customers move in and choose the basic room without paying for unnecessary one-time daily necessities, but they can also choose from three different charging packages outside of the "basic room" configuration based on their own personal needs. In addition to achieving social benefits and educating clients about the natural habitat, there are several intrinsic advantages to green hotels, such as increased hotel credibility, decreased operational costs, and substantial economic rewards. Put simply, with the current level of competition in the hotel sector, green hotels have emerged as a key tactic for hotels looking to establish their place. Without a matching willingness level, the 'College' and 'High school or below' categories cannot be plotted. This could indicate that there is minimal data to form a conclusion, or that there is less of a clear pattern of desire to pay more across these education levels.

Crosstab

		Q14.I often use public transport or other green options to reach my hotel.				Total
		Strongly disagree	neutral	Agree	Strongly agree	
Q4.	Count					
Monthly	Below \$500	55	29	19	3	
Income						

\$1001 - \$2000	100	94	81	25	
Above \$2000	32	72	224	66	
Total	187	95	324	94	700

Crosstab

		Q15.I participate in hotel initiatives to conserve resources (e.g., towel reuse).				
		Strongly disagree	Disagree	neutral	Agree	Strongly agree
	Count					
Q4. Monthly Income	Below \$500	0	0	0	1	1
	\$1001 - \$2000	2	6	4	8	45
	Above \$2000	10	2	10	24	19
Total		12	8	14	33	65

Table 2: Crosstab result for monthly income and Personal initiative

As shown in the result above, the use of public transport or other green options to reach the hotel, most respondents across all income levels agreed or strongly agreed with the statement. However, there was a noticeable difference in the distribution of responses based on income. Respondents with a monthly income above \$2000 showed a higher proportion of agreement compared to those with lower incomes.

For the question regarding the use of public transport or other green options to reach the hotel, it appears that guests with a monthly income of \$1001 - \$2000 and above \$2000 are more likely to agree or strongly agree with the statement. Specifically, a significant majority (51 out of 65) of guests with an income of \$1001 - \$2000 strongly agree with using green transportation options. Similarly, a majority (27 out of 65) of guests with an income above \$2000 strongly agree with the statement. This suggests that guests with higher income levels are more inclined to use environmentally friendly transportation options when traveling to their hotel.

4.3. Reliability test result

The findings from this study helped in determining how reliable the research variables are by looking at the outcomes of composite reliability and Cronbach's alpha. The components within the "Willingness to Pay for Green Hotel" construct is reasonably consistent and dependable, as indicated by the construct's Cronbach's Alpha of 0.703. This value is over the acceptable threshold of 0.7. The construct has strong internal consistency, as indicated by the Composite Reliability (CR) which is just below the Alpha at 0.693. Above the recommended threshold of 0.5, the construct captures a large amount of variance, as indicated by the square root of the Average Variance Extracted (AVE) of 0.82098 and the Average Variance Extracted (AVE) of 0.674.

Construct	Cronbach's Alpha	No. of items	Composite Reliability	Average Variance Extract (AVE)	Root of AVE
Willingness to pay for green hotel	0.703	4	0.693	0.674	0.82098
Consumer awareness	0.658	3	0.754	0.606	0.77846
Policy and Management	0.575	3	0.875	0.57	0.75498
Consumer behavior and preference	0.848	3	0.635	0.873	0.93434
Perception on Eco-friendly amenities	0.626	5	0.631	0.744	0.86255

Environmental consciousness	0.699	3	0.775	0.669	0.81792
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Table 3: Reliability test result

A lower Cronbach's Alpha of 0.658 for "Consumer Awareness" suggests that these items could use some work in terms of consistency; this is slightly below the generally recognized reliability criterion of 0.7. While the Alpha is marginally lower, the CR is 0.754 and the AVE is 0.606, indicating that the construct is still valid and dependable in terms of convergent validity and internal consistency.

With an Alpha of 0.575, the "Policy and Management" construct has the lowest score, which suggests that the items should be reevaluated to ensure consistency. Nevertheless, the CR stands at 0.875, the AVE is at the minimum threshold at 0.57 (with the root of AVE being 0.75498), suggesting a discrepancy that necessitates additional investigation to guarantee that the items accurately reflect the construct. Consequently, the construct validity of the study model and scale, as well as the validation factor analysis (CFA), are important considerations. The conceptual model of the concept is typically tested using construction validity, which includes convergent and differential validity. One checks for convergent validity, which states that observed variables and their corresponding potential variables coincide, while the other checks for differential validity, which states that separate potential variables are sufficiently differentiated. All variables have Cronbach's alpha values greater than 0.60 and composite reliability values greater than 0.70, as shown in the table above. Therefore, it is safe to say that all the study's variables were reliable.

The items in "Consumer Behavior and Preference" are very consistent with one another, as shown by the high Cronbach's Alpha of 0.848. The correlation validity measures how well the measurement results match the standard results, but there aren't many users. The content validity checks if the questionnaire item includes all the variable's characteristics; in this case, the scale used is a mature one developed by international scholars, so it has high content validity. Finally, the structure validity determines if the scale's variables align with the theoretical model. So, the data were examined, and the model's structural validity was checked in the pre-test questionnaire, proving that the questionnaire is reliable and valid. This research assesses the questionnaire's validity using a factor analysis method. The CR is lower at 0.635, the AVE is very high at 0.873, and the square root of the AVE is 0.93434. This indicates that, although the items are consistent, there may be redundancy among them or that the CR calculation must be reevaluated.

There is room for improvement in the modest level of internal consistency shown by the construct "Perception on Eco-friendly Amenities" (Cronbach's Alpha = 0.626). The consumption intention scale of hotels has a high reliability, good Cronbach's α value of 0.87, suggesting that the scale is reliable. Environment Behavior Scale Reliability Test The environmental behavior reliability test scale uses three different indicators to regulate environmental behavior. All signs point to high levels of convergent validity for these items: a CR close to the Alpha, an AVE of 0.744, and an AVE root of 0.86255.

4.4. ANOVA analysis

The ANOVA (Analysis of Variance) results table below provides information on whether there are any statistically significant differences between groups for each of the constructs related to the consumers' willingness and behaviors towards green hotels and environmental issues.

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Willingness to pay for green hotels	Between Groups	3.212	78	0.128	0.614	0.917
	Within Groups	19.655	94	0.209		
	Total	22.867	652			
Consumer awareness	Between Groups	7.051	25	0.282	1.381	0.131
	Within Groups	21.642	106	0.204		
	Total	28.694	421			
Policy management on environmental control	Between Groups	11.127	288	0.445	1.317	0.168
	Within Groups					

	Within Groups	35.832	412	0.338		
	Total	46.959	332			
Consumer behavior and preferences	Between Groups	12.452	132	0.498	1.004	0.469
	Within Groups	52.605	443	0.496		
	Total	65.057	212			
Perception on Eco-friendly Amenities	Between Groups	6.936	102	0.277	0.850	0.670
	Within Groups	34.587	423	0.326		
	Total	41.522	311			
Environmental consciousness	Between Groups	6.266	98	0.251	1.196	0.260
	Within Groups	22.208	112	0.210		
	Total	28.474	609			

Table 4: ANOVA result

As shown in the table above, on consumers' willingness to pay for green hotels, the ANOVA results show that the F-value is 0.614 with a significance (Sig.) level of 0.917. This high p-value suggests that there are no statistically significant differences between the groups in terms of their willingness to pay for green hotels.

Consumer awareness on the other hand the F-value for consumer awareness is 1.381, with a significance level of 0.131. This indicates that any differences in consumer awareness between groups are not statistically significant, although the F-value is higher than in the previous construct, implying a greater degree of variability.

This indicates that there are no group differences within the sample that could explain the observed variances in responses related to environmental consciousness, consumer knowledge, policy management, consumer behavior and preferences, perception of eco-friendly amenities, and willingness to pay. Additional findings indicate that visitors' propensity to visit green hotels is mediated by their functional and emotional values, which in turn explain the relationship between their environmental care and knowledge. Even though environmental awareness has little bearing on whether or not visitors plan to stay at green hotels, it does have a direct and positive effect on how much value customers perceive these hotels to be. When there was less policy and exposure, personal norms had less of an impact on the intention to stay at a green hotel. The impact of individual standards on readiness grew over time in response to rising policy and publicity levels. Researchers and practitioners in the hospitality industry can use this information to better understand consumer attitudes towards environmental factors. It shows that these attitudes are generally consistent across different demographic or psychographic groups in this sample.

4.5. Moderating effect analysis

The regression model summary indicates a robust model with a high R square value of 0.570, suggesting that approximately 57% of the variability in the willingness to pay for green hotels can be explained by the predictor variables: consumer behavior and preferences, policy management on environmental control, and consumer awareness.

		Coefficients ^a					
Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.	Collinearity Statistics
		B		Beta			Tolerance VIF
1	(Constant)	0.927	0.293		3.169	0.002	
	Consumer awareness	0.182	0.073	0.187	2.504	0.014	0.667 1.498

Policy management on environmental control	0.347	0.057	0.421	6.065	0.000	0.770	1.299
Consumer behavior and preferences	0.262	0.045	0.390	5.828	0.000	0.827	1.210

a. Dependent Variable: Willingness to pay for green hotels

Table 5: Regression Result

Despite adjusting the R-squared value for the number of data and predictors in the model, which results in a somewhat lower value of 0.559, the model's great explanatory power is still evident. As a ballpark for the usual magnitude of prediction mistakes, the estimate's standard error is 0.29099. An ideal feature of a regression model is that its residuals are independent of one another; a Durbin-Watson statistic of 2.045, which is near to 2, indicates that the regression's residuals do not exhibit any substantial autocorrelation.

The t-statistics and significance levels show that each predictor variable has an individual impact, with the most significant one being "Policy management on environmental control" with a t-value of 6.065 ($p < 0.001$). The data does not support H5 since there was no significant interaction between environmental responsibility and price sensitivity (95% CI = -0.054 to 0.086), suggesting that price sensitivity did not moderate the relationship between environmental responsibility and green consumption intention. The results showed that there was a negative coefficient of interaction ($\beta = -0.289$) and that environmental concern and price sensitivity did not interact with zero (95% CI = -0.418 to -0.161). This suggests that price sensitivity did moderate the relationship between environmental concern and green consumption intention, and that it reduced the positive effect of environmental concern on green consumption intention, lending support to H6. When it comes to the psychological stage of environmental responsibility and green consumption intention, these findings suggest that consumers may be unaffected by economic factors. However, when it comes to the psychological stage of environmental concern and green consumption intention, consumers will take economic factors into account. "Consumer awareness" has a lower still substantial effect with a t-value of 2.504 ($p = 0.014$), while "Consumer behavior and preferences" also have a large and significant influence with a t-value of 5.828 ($p < 0.001$).

There does not appear to be any issue with multicollinearity between the independent variables, as indicated by the collinearity statistics. All the Tolerance values are greater than 0.1 and the Variance Inflation Factor (VIF) values are less than 10. That could be because being environmentally responsible merely entails deciding who is to blame and acting, whereas being environmentally concerned necessitates that consumers assess the amount of time, energy, money, etc. that will be required to address environmental issues.

V. Discussion and Conclusion

This chapter presents the empirical analysis that supports the mediation hypothesis and provides an adjustment to the hypothesis. The hypothesis states that environmental consciousness influences consumer hotel environmental measures indirectly through behavior attitude, subjective paradigm, and behavior control. Additionally, it explains how recent positive regulation of environmental behavior leads to improved regulation. Consequences and responsibility consciousness also have a favorable effect on individual standards, lending credence to earlier research. Consumers' environmental consciousness, behavior attitude, subjective paradigm, and behavior control have a significant impact on hotels' environmental protection, consumption intention, and behavior control. Therefore, it is important for consumers to guide, set up, and enhance these aspects of hotel consumption intention. customers are more ethically compelled to stay at a green hotel due to their growing awareness of the environmental pollution and resource waste generated by conventional hotels; customers' sense of responsibility and belonging further increases their sense of obligation to remain at a green hotel.

Findings suggest that environmental control policy management significantly affects consumers' propensity to spend more for eco-friendly hotel chains. This provides a direct response to the issue by demonstrating that hotel regulations reflecting a sense of environmental responsibility have a beneficial effect on customer choice. The intention to stay at a green hotel is positively impacted by environmental concerns, personal norms, and the perception of consumer effectiveness. Prior to environmental concern and perceived consumer effectiveness, personal norms had a greater impact on behavioral intention. Schwartz also discovered that personal norm significantly influences pro-environmental intention, therefore these findings are consistent with his findings. Hotels that take environmental management seriously will likely attract customers who are prepared to pay a premium for sustainable amenities. To further understand the financial feasibility of

sustainability activities in the hospitality industry, it would be helpful to investigate how the identified elements impact customer loyalty and the financial success of green hotels over the long term.

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Appendices

Appendix 1: Education level statistics

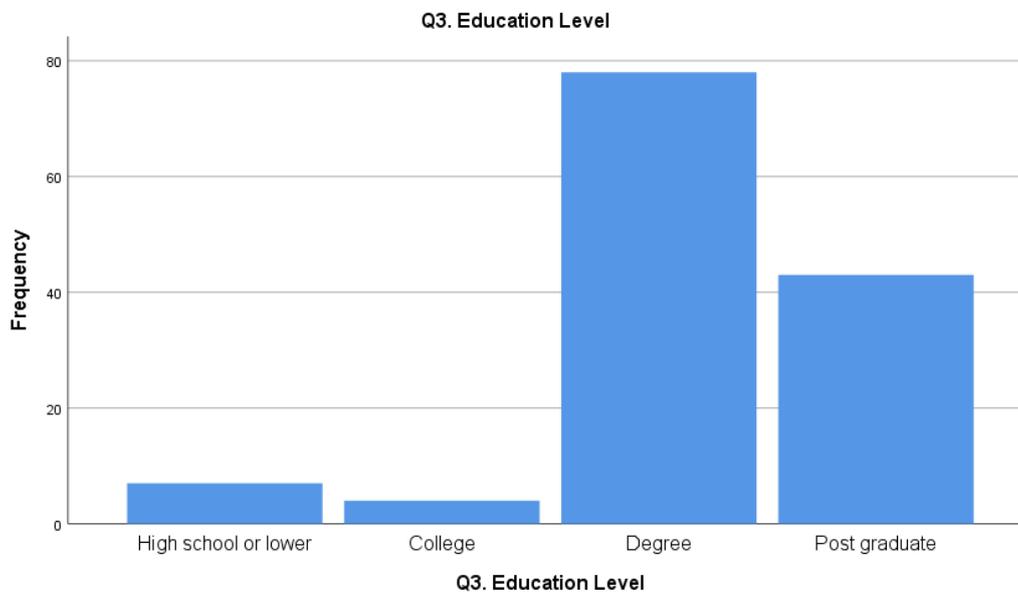


Figure 4: Education level plot

Appendix 2: Crosstab on Gende and Consumer’s willingness to pay

Q2. Gender * Q9.I am willing to pay more for a stay in an eco-friendly hotel. Crosstabulation

		Q9.I am willing to pay more for a stay in an eco-friendly hotel.				Total
		Strongly disagree	neutral	Agree	Strongly agree	
Count	Q2. Gender Male	23	35	150	170	378
	Female	60	65	90	107	322
Total		83	100	240	227	700

Table 6: Gender and Willingness to pay more in eco-friendly hotels

Appendix 3: Willingness to pay distribution

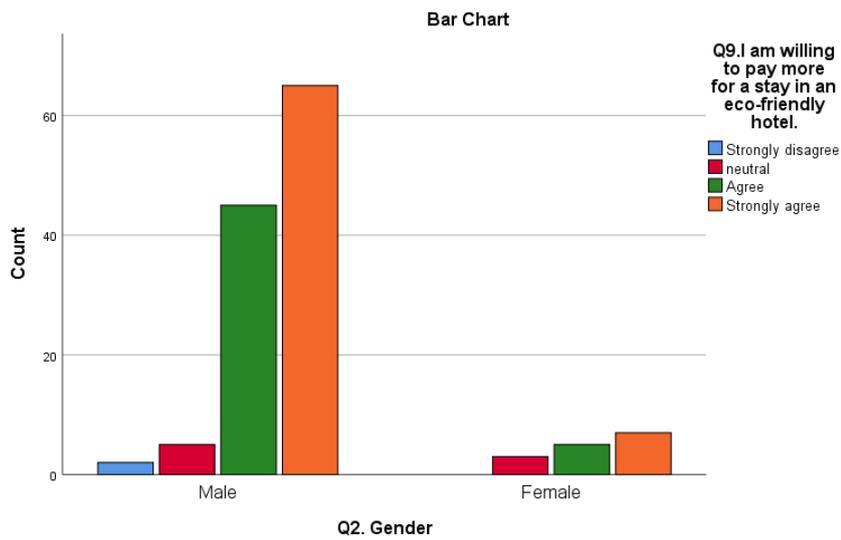


Figure 5: Gender and Willingness to pay more in eco-friendly hotels

Appendix 4: Information seeking about eco-friendly hotels

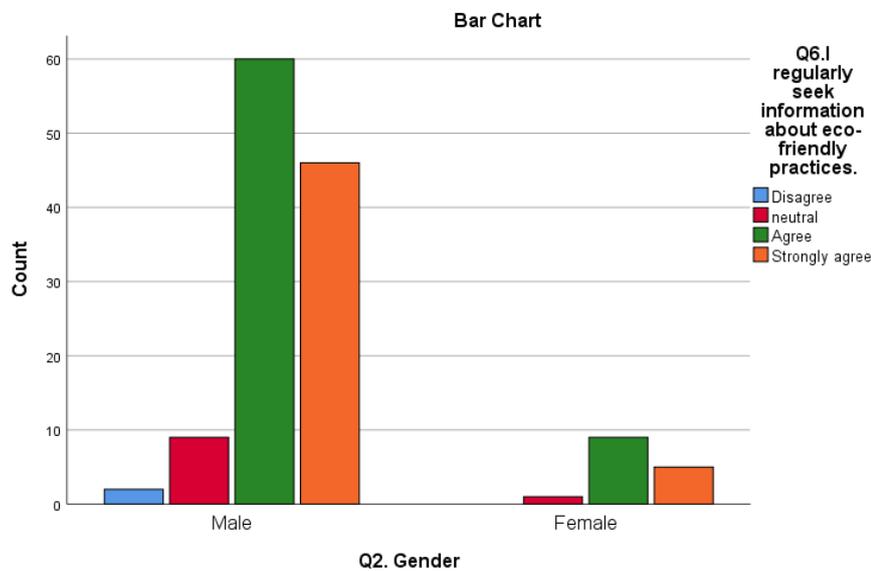


Figure 6: Gender vs Information seeking about eco-friendly hotels