

Environmental practices of hotels on the formation of guest value and intentions: Inputs to environmentally friendly hotel framework in Bicol Region

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Abstract

The lodging sector promotes ethical business and hospitality, from better managing energy, water conservation, and waste reduction that continually address climate change. Thus, this study assessed the environment, guest value, and intentions of staying in hotels with environmental practices in the Bicol region. The researcher used a quantitative method and descriptive research design using stratified random sampling of 390 hotel guests of DOT-accredited hotels in Bicol Region. The Spearman rho, a nonparametric measure of rank correlation, was utilized to test revealed a high relationship between Environmental Practices of Hotels and Guest Intentions to stay in Hotels with Environmental Practices. The t-test revealed under the environmental practices of hotels, only the disposal practices have a significant difference when grouped according to age, as a result, the hotel guests appreciate the environmental policies of hotels in terms of how they appropriately dispose of their people's waste. These further revealed the relationship between hotel environmental practices in terms of water conservation, waste reduction, and disposal practices when grouped according to hotel guests' hedonic values, utilitarian values, and environmental concerns. Lastly, a framework was created to further strengthen the hotels' environmental practices in the Bicol Region and provide relevant recommendations that may improve guest experiences, minimize their environmental impact influence on the environmental cycle.

Keywords: guest intentions, guest value, hotel environmental practices

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1. Introduction

In response to the growing awareness of environmental resilience, the hotel and resort industry has witnessed a significant rise in the adoption of environmental practices over the past years. These practices encompass various aspects, including waste management, water and electricity consumption, and environmental standards. By implementing these strategies, hotels aim to minimize the negative environmental effects associated with their operations while also reaping economic benefits (Ouyang et al., 2019).

The attitudes of hotel guests towards environmental practices play a significant role in their decision-making process. Guests who prioritize the environment may hold a more favorable attitude towards hotels that actively implement green practices, viewing them as integral to their overall experience. These environmentally conscious guests are more likely to share their positive experiences through word-of-mouth, leading to increased customer loyalty and potential new customers. The intention of hotel guests to stay in environmentally friendly hotels is influenced by their perception of value and attitudes towards these practices. When guests perceive a high level of value from a hotel's environmental practices and hold a positive attitude towards them, they are more inclined to choose such hotels for future stays. This ultimately contributes to enhanced customer retention and an expanded customer base (Martínez et al., 2019).

The environmental practices of hotels range from energy conservation to community engagement. These practices can have a positive impact on both the environment and the bottom line of hotels. For example, energy conservation practices such as using energy-efficient appliances and lighting can help hotels to save money on their energy bills. Water conservation practices such as using low-flow showerheads and faucets can help hotels to reduce their water consumption. Waste reduction practices such as composting food scraps and recycling materials can help hotels to reduce the amount of waste they send to landfills. Sustainable sourcing practices such as sourcing food, products, and materials from sustainable sources can help hotels to reduce their environmental impact. Community engagement practices such as supporting local businesses and donating to local charities can help hotels to build relationships with their local communities (Borbon, 2022).

In Philippines, the environmental practices of hotels have become eminent in the past years (Ong, 2019; Si, Manalo, Mayosal, & Esplanada, 2020). There has been a growing trend of embracing environmental practices in the hotel and resort industry, driven by the recognition of its connection to environmental issues. In the Philippines, the detrimental effects of environmentally degrading tourism have raised awareness, prompting resorts to adopt environmental practices in various areas such as waste management, water conservation, and electricity consumption (Si, Manalo, Mayosal, & Esplanada, 2020).

Examples of hotels and hotel chains that practice environment-friendly practices are Iris Island Eco Resort, in Davao, El Nido Resorts Miniloc Island, in Palawan, Atmosphere Resorts and Spa, in Negros Oriental, Mandala Resort and Spa, in Aklan, and Amarella Resort, in Bohol. Synthesizing the article posted in the ETIC Hotels Journal website, the common elements that contribute to making these hotels "green" or sustainable include the use of renewable energy, waste reduction and recycling practices, water conservation, preservation of natural resources and ecosystems, and an overall commitment to minimizing the environmental impact of the hotel operations.

While there have been hotels in Philippines that practice environmental culture, these hotels, however; could be considered "outliers". Based on Gomez's (2018) research, the Philippines ranks poorly in terms of promoting environmentally responsible tourism. Additionally, the capital city of Manila has been classified as one of the

least environmentally friendly cities in the 2018 Sustainable Cities Index (Haldorai, Kim, & Garcia, 2022). That means to say that the country still needs rigorous “green” practices implementation and research on its implications since there is still a dearth of research when it comes to the environmental practices and customer satisfaction and perceptions themes in hotels in the Philippines, especially among small to medium-sized hotels like the Mabuhay hotels.

While the focus on environmental practices in hotels has increased, there are still research gaps and challenges that need to be addressed. These gaps include the low awareness and understanding of potential environmental benefits among hotel guests, perceived trade-offs between green practices and other aspects of the guest experience, inconsistency in implementation and standards, and a lack of research on medium-sized and small hotels in specific regions like the Bicol Region. Furthermore, there is a need for more research on the long-term impacts of environmental practices on guest satisfaction, and revisit intention. Addressing these gaps through further research will lead to a more comprehensive understanding of environmental practices within the hotel industry and promote effective implementation of green practices (Han & Hyun, 2018).

In the pursuit of promoting green tourism, the role of environmental practices in the hotel industry has gained increasing attention. Understanding the factors that influence guests' perceptions and intentions towards environmentally friendly hotels is crucial for the development of effective strategies and frameworks. The present study aims to determine the relationship between green practices of hotels, the formation of guests' values, and their intentions towards eco-friendly accommodations in the Bicol Region. The study employs an instrument that was developed based on previous research studies to measure guests' perceptions and intentions towards environmentally friendly hotels. The scope of this study focuses on medium and small hotels accredited by the Department of Tourism (DOT) in the Bicol Region. The selected sample represents a specific sector of the hotel industry and allows for a more targeted investigation into the relationship between green practices, guest values, and intentions in this particular context.

The rationale behind this study is anchored on the need to address the growing importance of environmental practices in the hotel industry, particularly in the Bicol Region. Recommendations from organizations such as the Department of Tourism highlight the significance of integrating green practices into hotel operations. By investigating the relationship between green practices, guest values, and intentions, this study aims to contribute to the development of a comprehensive framework that promotes eco-friendly hotels in the region.

The primary beneficiaries of this study are the hotels themselves. By understanding the relationship between green practices, guest values, and intentions, hotels in the Bicol Region can enhance their “green” efforts and effectively cater to the preferences of environmentally conscious guests. Furthermore, this study's findings may have broader implications for the sustainable development of the tourism industry in the region. This study aims to examine the relationship between green practices, guest values, and intentions towards environmentally friendly hotels in the Bicol Region. By investigating this relationship, the study aims to contribute to the development of a framework that promotes sustainable and eco-friendly practices in the hotel industry. The proposed framework will serve as the output of this study and provide valuable insights for hotels and stakeholders in the Bicol Region to enhance their sustainability efforts and cater to the growing demand for environmentally conscious accommodations.

Objectives of the Study - The study determined the environmental practices, guest value, and intentions of staying in hotels with environmental practices in Bicol Region. Specifically, it sought to identify the demographic profile of the respondents in terms of sex, age and educational attainment; determine the environmental practices of hotel in terms of water conservation, waste reduction and disposal practices; assess the hotel guests' value of hotel environmental practices in terms of hedonic value, utilitarian value, and environmental concerns; and evaluate the guest's intentions of staying in hotels with environmental practices in terms of stay intention; intention to spread word-of-mouth; and willing to pay a premium. Furthermore, this study tested the significant difference when grouped according to the profile variables, in terms of hotel

environmental practices, guest value and intentions; tested the significant relationship of guest intention on staying in a hotel with environmental practices, and to the hotel guest value on hotel environmental practices, and the guest intention in staying in hotel with environmental practices; and lastly proposed a framework for the improvement of environmental practices of hotels in Bicol Region.

2. Methods

Research Design - The study used a quantitative research design to collect the necessary data and information regarding the given questions and objectives of the study. Thus, this is also in accordance to the study of the study Panda (2022) that this can be also be employed descriptive correlation aims to describe two or more variables and their relationships. This design will identify the fundamental traits of the information obtained or used in a study. This was utilized in testing the relationships between variables when grouped according to the profile variables. And test the significant relationship between hotel environmental practices, hotel guest value environmentally friendly hotel, and the guest intention on staying environmentally friendly hotel. The descriptive method reliably achieves the objectives.

Participants of the Study - The participants of interest are represented by the guests of 98 delimited hotels that are Department of Tourism (DOT) accredited of Bicol region in the four neighboring provinces such as Albay, Camarines Sur, Camarines Norte, and Sorsogon; and the two island provinces of Catanduanes and Masbate. The total estimated hotel guest arrival per month of different hotels in the region is 26,297 based on the researcher source of surveyed gathered data. The actual implemented number of participants is 390 which is exceeded to the required sample size resulted to 379 based on Raosoft sample size calculator with 50% response distribution, 5 % margin of error and 95 % confidence level. The qualifiers are the hotel guests who check-in during the past six to nine months and are 18 years old and above which a further consideration of at least 22-55 years old, working or which has a capacity to purchase a hotel room. A stratified random sampling was utilized with all provinces in the Bicol region having a fair chance to participate in the study. Further, to be considered as a respondent, the following criteria were established: (1) they must be aware of hotel environmental practices; (2) they must have hotel experience in any province of the Bicol region; and (3) they must be willing to take part in the research and answer survey form.

Data Gathering Instrument - The quantitative research instruments include a variety of assessments, survey data, structured questionnaires, and evaluations that use explicit marking and categorizing schemes. The main instrument of this study is an adapted-modified questionnaire from multiple studies. The first part consists of the demographic profile of the participants in terms of sex, age, educational attainment and hotel experience in province of Bicol region. The second part pertains to determine the environmental practices of hotel in terms of hotel practice on water conservation, hotel practice of waste reduction, disposal practices adapted from Asi (2019). The third part on assesses the hotel guest's value on hotel environmental practices on hedonic value, utilitarian value, and environmental concern from the study of Han et al (2018). This part employed a five-point Likert scale indicating as 5 – Strongly Agree, 4 – Agree, 3 – Moderately Agree, 2 – Disagree and 1 – Strongly Disagree. The Likert scale provides five possible answers to a statement or question, allowing respondents to indicate their positive-to-negative strength of agreement or strength of feeling regarding the question or statement. It is used to express how much an individual agrees or disagrees with a specific statement (McLeod, 2023). Additionally, it is also useful to survey writings because they help maximize assessment.

Moreover, a method is regarded as valid if it measures what it claims to assess, and the findings roughly correlate to real principles. Finally, run through pilot testing among 30 respondents who are same with the qualifiers stated from the participants of the study and which were also not part or separated from the survey proper done after the said pilot testing, the said pilot test was run through a Cronbach Alpha. Hence, considering the Pearson product-moment correlation using SPSS, the significant value presented it can be concluded that all items were valid denoting the r value of 0.05. The result of reliability statistics showed that the computed Cronbach's alpha value for environmental practices of hotel (0.905), hotel guests' value on hotel with

environmental practices (0.918) and guest Intentions on staying in hotel with environmental practices (0.947) signifies that the instrument has strong or excellent internal consistency in the rule of thumb. Thus, this set of questionnaires are considered valid and reliable for use.

Data Gathering Procedure - Following an extensive review of the available literature, the researcher sought a modifiable survey instrument for assessing hotel environmental practices, guest value, and intentions. The data gathering starts after the content validation of the questionnaire and pilot testing. Participation in the research survey was on a voluntary basis, and the respondents were given full freedom to answer the questions. Participants were given time to respond. The data was collected, tallied, and compiled before being presented to the statistician, which then used the appropriate statistical techniques to process the data. The results were being discussed likewise analyzed. No information about the respondents was given outside the educational purpose of this study.

Ethical Considerations - The secrecy principle in ethical research stipulates that participants' identities must remain secret, and the data they provide must be respected. Participants may have given consent to their personal data being disclosed to others in some cases but must still ensure that the data are carefully kept. The research ensured the security and confidentiality of the hotel establishment in accordance with the Data Privacy Act of 2012. For security reasons and to position the establishment's reputation in the community, the names and particulars of the establishment were not mentioned or exposed to the public throughout the study.

Data Analysis - After the data were collected and tallied, the Statistical Package for the Social Sciences (SPSS) software was used to analyze the data. Several appropriate statistical tests were utilized to adequately assess the data provided for this study. The respondents' demographic features were described using frequency distribution and percentage, while their agreement on the solicited answer was described using weighted mean and composite mean. using different statistical measures. The researcher used weighted mean, standard deviation, and rank to establish and determined the environmental practices, assess guest value on hotel environmental practices, and evaluate guest intention to stay in the hotel with environmental practices in the hotel of Bicol region. This is a form of mean that is computed by multiplying the weight associated with a certain situation and the result by the quantitative outcome and then adding the findings Taylor (2023). The result of the Shapiro-Wilk Test showed that the p-value of all variables was 0.05 alpha level which means that the data were not normally distributed. Thus, the t-test was used as part to test the significant difference between of environmental practices and guest value intention on staying in a hotel with environmental practices when grouped according to profile. The non-parametric measure of rank correlation, Spearman rho, was utilized to test significant relationships at the 0.01 level. It assesses how well a consistent function can describe the relationship between two variables.

3. Results and discussion

Table 1

Demographic Profile of the Respondents

Profile	Frequency (f)	Percentage (%)
Sex		
Female	272	69.7
Male	118	30.3
Age		
23-38 years old (Gen Y)	225	57.7
22 years and below (Gen Z)	103	26.4
39-54 years old (Gen X)	49	12.6
55 years old and above (Baby Boomers)	13	3.3
Educational Attainment		
College	318	81.5
Masters	42	10.8
Doctoral	21	5.4
Senior H/S	6	1.5
High School	3	0.8

It was revealed in table 1 that out of 390 respondents, majority of 272 which is 69.7 percent are female guests followed by 118 (30.3) male guests. This conclude that the majority of guests that has an history checking into hotels that practices environmentally friendly activities are females. This is because women are more conscientious about personal hygiene. Having an environmentally friendly facility draws individuals since it piques their interest, and the sustainable items given are frequently photo-worthy or aesthetically pleasing for their social media.

According to Wang et al. (2018), female travelers are more likely to recommend green hotels than male tourists. Moreover, women are found out to be more vulnerable to indoor air pollution from solid fuel use in many low-income countries, to increased harm from poor sanitation to higher exposure to toxic chemicals in occupations (e.g., the textiles industry), and to climate change, biodiversity loss, and ecosystem damage in general. In modern countries, men and women are exposed to different levels of pollution and harmful substances due to disparities in consumption, physiological variances, and social backgrounds.

The results showed a relative representation distributed across four age groups 225 with 57.7% are majority between 23 – 38 years old (Gen Y) followed by 103 who are 22 years old below (Gen Z) with 26.4 %, 49 with 12.6 % under 39 – 38 years old (Gen X) and the least of them are 55 years old and above (Baby Boomers) are 13 with 3.3%. It also demonstrates that the majority of the respondents are from Generation Y, followed by Generation Z, and that the respondents in this study are aware of and have stayed in hotels in the region. They can assess the value of environmental practices in the hotels where they stay.

To support the findings, according to Urwin and Sao Joao, (2020), Environmentally Friendly (EF) methods and facilities have increased significantly in the worldwide corporate environment and hospitality industry. Consumers of Generation Y are a socially conscious generation that are concerned about the detrimental influence on the environment. Demerdash, (2019) also stated in his study that Millennials or Generation Y are a unique and dominating consumer demographic whose behavior, interests, and purchasing habits have been extensively researched. They have the ability to revolutionize the hospitality sector and help to the formation of projected demand for green hotels by demonstrating a readiness to embrace environmentally friendly practices.

Regarding educational attainment, out of 390 respondents there are 318 with 81.85% are college; 42 or 10.8% are masters; 21 or 5.4% are Doctoral; followed by 6 or 1.5% are Senior H/S and the least are 3 or 0.8% are under High School level. This implies that the majority of those who responded are college graduates, those guests with a college diploma have the greatest experience staying in hotels in Bicol as they possess a job and a sufficient budget for themselves. According to Chankrajang and Muttarak, (2017), more years of education increase the likelihood of doing knowledge-based environmentally beneficial acts, but not cost-saving pro-environmental behaviors. However, Mohiuddin et al., (2018) stated that students in developing nations, regardless of educational level, have a modest level of awareness of environmental challenges regardless of their educational standards.

Table 2

Summary Table on Environmental Practices of Hotels

Environmental Practices of Hotel	Mean	Std. Dev.	Rank	Interpretation
Water Conservation	3.90	0.72	2	<i>Agree</i>
Waste Reduction	3.63	0.55	3	<i>Agree</i>
Disposal Practices	4.09	0.57	1	<i>Agree</i>
Overall Mean	3.88	0.51		<i>Agree</i>

Table 2 reveals the summary of all environmental practices that exist particularly in hotels located in Bicol region. It has an overall mean of 3.88 which verbally interpret as agree. this result depicts that there is an environmental practice in hotels in Bicol Region and the guests who had an experience checking in had witnessed it. The standard of their services was aligned and planned well considering the benefit it will give to the environment and the impression they will leave to their guests. The leading environmental practice was the

disposal practices which garnered 4.09 weighted mean followed by water conservation (3.90) and the least weighted mean of 3.63 goes to waste reduction. All was verbally interpreted as agree. The garbage that is being disposed of came from the guests, and they witnessed the waste collection that is being done by the staff during room service throughout their stay. According to Lema et al., (2019), Inadequate solid waste management experience and a lack of access to door-to-door solid trash collection may have contributed to the reported wrong solid waste practice. Moreover, the mixing of garbage by collection crews after separation at the source, as well as the misallocation of collection time and manner, are dark spots in the solid waste management system that may be reasons for stakeholder non-cooperation (Pham Phu et al., 2019). Rawal and Takuli, (2021) reveal that waste management is a critical issue that requires public participation. On a priority basis, raise awareness and administrative attention, as well as provide direction. In comparison to other industries, managing trash in the best way affects the social, economic, and environmental challenges of nations and organizations in Hotels are the largest users of resources and contribute to rubbish development.

Table 3

Summary Table on Hotel Guest Value on Hotel Environmental Practices

Hotel Guests' Value on Hotel Environmental	Mean	Std. Dev.	Rank	Interpretation
Hedonic	4.36	0.70	1	<i>Agree</i>
Utilitarian	4.34	0.68	2	<i>Agree</i>
Environmental Concern	4.24	0.78	3	<i>Agree</i>
Overall Mean	4.31	0.64		<i>Agree</i>

Table 3 gives the summary on hotel guests' value on hotel environment in terms of hedonic, utilitarian, and environmental concern which garner a general mean of 4.31 and interpret as agree. This shows that the guests' value is engaged while they receive service from the hotel. They contribute to the hotel's growth, particularly in terms of adhering to environmental regulations that apply to the premises. This leads to the conclusion that there are existing values that impact visitors every time they receive or are exposed to various environmental practices in hotels. The highest weighted mean of 4.36 are from hedonic value which was interpreted as agree. It was also found out that the guests agree that there is utilitarian value involvement on hotels during environmental practices. It has a weighted mean of 4.34 and verbally interpret as agree. This indicates that visitors were connected through emotional attachment or sentiments about the hotel's environmental policies. Being involved in the aforementioned procedures was judged to be enjoyable by the guests who were new to the activity. The task at hand is not the only aspect that contributes to the guest's emotions, but so is the fact that what they are doing can improve the environment. It was supported in Sun et al. (2021) study stating that customer's connection to a themed hotel can be triggered by emotional causes. Consumer interest in green consumerism has expanded as environmental concerns have grown, and many hotels have begun a green transformation to match this rising public mood. However, many customers are still wary about green hotels (Kamboj et al., 2022).

Moreover, the least weighted mean of 4.24 goes to environmental concerns which has a verbal interpretation of agree. This leads to the conclusion that some guests have concerns, and some do not address environmental issues. However, having a highly weighted indicator that is close to other indicators indicates that they agreed that they had environmental concerns. Furthermore, they are aware of the practices and how they help not only themselves but also the environment. This also further elucidates a mixed response from guests regarding environmental issues in the context of their hotel experience. Dharmesti et al. (2020) addresse contemporary environmental challenges in the hotel business and adds to the literature on tourism sustainability by focusing on real pro-environmental behavior in a hotel setting.

Table 4 shows the summary table on the guest intentions in terms of stay intention, intention to spread word-of-mouth, and willingness to pay extra upon staying in an eco-friendly hotel. It has a composite mean of 4.26 which verbally interpreted as agree. This merely confirms that visitors engage whenever they are delighted with the service; the idea of having an environmental practice in which a guest can also participate offers satisfaction, which encourages them to go above and beyond. They are willing to remain or be loyal, they can

suggest, and they are prepared to pay more for more exclusive services. The highest weighted mean of 4.37 goes to stay intention. This resulted in the guest's agreeing that there is a stay intention happening especially in their behavior once they are assured of the services to be receive. Moreover, it was also found out that guest agree that they have an intention to spread word-of-mouth with a weighted mean of 4.31.

Table 4

Summary Table on Guest Intentions in Staying in Hotel with Environmental Practices

Guest Intentions	Mean	Std. Dev.	Rank	Interpretation
Stay Intention	4.37	0.72	1	<i>Agree</i>
Intention to Spread Word-of-Mouth	4.31	0.69	2	<i>Agree</i>
Willingness to Pay a Premium	4.11	0.76	3	<i>Agree</i>
Overall Mean	4.26	0.65		<i>Agree</i>

Customer impressions of environmentally friendly actions have a direct beneficial impact on a hotel's green image. Simultaneously, the green image has a direct favorable impact on client behavioral intentions toward certified hotels (Martínez García de Leaniz et al., 2017). Moreover, Nimri et al., (2020) stated that the biggest predictor of green patronage intention appears to be perceived behavioral control. Furthermore, green hotel knowledge and attitudes, as well as subjective injunctive norms, were found to favorably affect intention to patronize green hotels. Yee et al., (2020) also added that Environmental awareness, historical green consumption behavior, environmental attitude, subjective norms, and perceived behavioral control all have a positive and significant impact on patrons' intention to pick a green-themed hotel.

Additionally, willingness to pay premium is the least indicator garnering a weighted mean of 4.11. This demonstrates that not all guests can afford to pay for premium services, especially during a brief stay. Furthermore, environmental measures are observed not just in the premium but also throughout the premises. As a result, regardless of their wage disparities, people may still engage in a variety of environmental activities within the hotel. Some guests are willing to pay for green products and services, but many are unwilling to pay a premium for them. As a result, hotels face a significant task in developing green services that would appeal to customers. They should also raise awareness about the use of green services and their relevance so that consumers may buy without concern (Agarwal and Kasliwal, 2017).

Table 5

Differences in Responses on Environmental Practices of Hotels, Hotel Guest Value on Hotel Environmental and Intentions in Staying in an Eco-friendly Hotel when grouped according to Profile

Variables	Sex		Age		Educational Attainment		Interpretation
	t-test	p-value	F	p-value	F	p-value	
Environmental Practices of Hotel							
Water Conservation	0.068	0.946	1.941	0.122	1.067	0.372	Not Significant
Waste Reduction	-1.457	0.146	0.458	0.712	1.053	0.379	Not Significant
Disposal Practices	-0.998	0.319	3.284	0.021	0.978	0.419	Significant
Overall Mean	-0.867	0.387	1.65	0.177	1.3	0.269	
Hotel Guest Value on Environmental Practices							
Hedonic	-1.667	0.096	2.248	0.082	0.405	0.805	Not Significant
Utilitarian	-0.987	0.324	2.044	0.107	0.292	0.883	Not Significant
Environmental Concern	-0.211	0.833	2.176	0.09	0.764	0.549	Not Significant
Overall Mean	-1.046	0.296	2.723	0.044	0.578	0.679	Significant
Guest Intentions on staying in Hotel with Environmental Practices							
Stay Intention	-0.639	0.523	4.279	0.005	0.255	0.906	Significant
Intention to spread- Word-of mouth	0.111	0.912	4.985	0.002	1.435	0.222	Significant
Willing to pay a premium	0.717	0.474	2.492	0.06	0.752	0.557	Not Significant
Overall Mean	0.081	0.935	4.716	0.003	0.689	0.6	Significant

Legend: Significant at alpha = 0.05

Table 5 shows the differences of response on environmental practices of hotel in terms of guests' value and guest intentions on staying at an eco-friendly hotel located in Bicol Region. when grouped according to profile.

It was depicted in the result that the under the environmental practices of hotel, only the disposal practices have a significant difference when grouped according to age. This means that the guest's age might impact their perspective on disposal methods that occur within the premises.

Hotel owners and operators understand the value of sustainability, and many of them actively advertise their best practices as a marketing tool. They are using green marketing to differentiate themselves from competition and save expenses related with trash disposal and material utilization (Dixit et al., 2021). Moreover, Duric and Potočnik Topler, (2021) said that environmental sustainability is gradually being recognized as one of the most essential roles of the hotel industry, alongside communication and marketing, in order to attract a bigger number of customers. Moreover, it was found out that regarding the hotel guests' value on hotel environment, it has a significant difference to the overall mean. This indicates that guests use their convictions when obtaining a service or product from a hotel. They are more educated about environmental issues because they may influence not just the environment but also their experience while on the premises. Tourist behavior has a significant influence on tourism's environmental sustainability. Tourist behavior is particularly difficult to modify due to the hedonic character of tourism and the lack of an economic incentive. Making tourists more ecologically conscious would have significant environmental advantages (Dolnicar et al., 2017).

When it comes to the guests' intentions of staying in an eco-friendly hotel, the overall mean has a significant difference as well as the stay intention and intention to spread word of mouth affected by age. This suggests that there is a free will occurring while the guests are inside the hotel grounds, witnessing the environmental practices in which they can participate. Richards and Morrill (2020) stated that exploration is most essential to all Millennials. Moreover, Han et al. (2019) stated that switching obstacles considerably affected the relationship between satisfaction and intention.

Table 6

Relationships Between Environmental Practices of Hotel and Guest Value on Hotel Environmental Practices

Hotel Guests' Value on Hotel Environmental									
Hotel Environmental Practices	Hedonic		Utilitarian		Environmental Concern		Overall Mean		Interpretation
	r_{xy}	p -value	r_{xy}	p -value	r_{xy}	p -value	r_{xy}	p -value	
Water Conservation	.537**	0.000	.535**	0.000	.467**	0.000	.577**	0.000	Significant
Waste Reduction	.412**	0.000	.371**	0.000	.320**	0.000	.413**	0.000	Significant
Disposal Practices	.656**	0.000	.621**	0.000	.437**	0.000	.639**	0.000	Significant
Overall Mean	.652**	0.000	.623**	0.000	.503**	0.000	.665**	0.000	Significant

**. Correlation is significant at the 0.01 level (2-tailed)

Table 6 depicts the relationship between environmental practices of hotel in terms of water conservation, waste reduction, and disposal practices when grouped according to hotel guests' hedonic values, utilitarian values, and environmental concern. It was also in this table shows that the water conservation has a significant relationship to the guests' hedonic, utilitarian, and environmental concern. It implies that when there is an existing water conservation practices in a hotel, guests tend to be more hedonistic, utilitarian and becoming more environmentally concerned which leads them to satisfaction. Customers' attributes are critical in establishing pro-environmental intents (Han & Hyun, 2018). Moreover, Han and Hyun, (2018) also stated that the desire of visitors to conserve water was a major function of moral standard, expected sentiments, and water-saving behavior in everyday life. Furthermore, waste reduction also found to have a significant relationship with hedonic values, utilitarian values, and environmental concerns. It implies that when the hotel practices waste reduction, guests develop their hedonistic, utilitarianism, and environmental awareness side of them because they are being reminded of the purpose of doing such practice.

Lastly, the correlation between waste reduction in hotels and guests' hedonic values, utilitarian values, and

environmental concerns signifies a multifaceted response to sustainability practices. Waste reduction isn't merely a functional act; it appeals to guests on a sensory level (hedonistic values), reflecting pleasure or enjoyment in participating in something meaningful. From a utilitarian perspective, guests recognize the efficiency and practicality of waste reduction, valuing the resourcefulness it represents. Most importantly, waste reduction in a hotel setting can serve as a vivid reminder of broader environmental stewardship, catalyzing a sense of environmental awareness.

Table 7

Relationships Between Environmental Practices of Hotels and Guest Intentions in Staying in Hotel with Environmental Practices

Guest Intentions on Staying in Hotel with Environmental Practices									
	Stay Intention		Intention to Spread Word-of-Mouth		Willingness to Pay a Premium		OVERALL MEAN		
	r_{xy}	p -value	r_{xy}	p -value	r_{xy}	p -value	r_{xy}	p -value	INTERPRETATION
Environmental Practices of Hotel									
Water Conservation	.455**	0.000	.533**	0.000	.501**	0.000	.556**	0.000	Significant
Waste Reduction	.272**	0.000	.347**	0.000	.351**	0.000	.363**	0.000	Significant
Disposal Practices	.460**	0.000	.510**	0.000	.476**	0.000	.540**	0.000	Significant
<i>Overall Mean</i>	.488**	0.000	.571**	0.000	.545**	0.000	.599**	0.000	Significant
Guest Intentions on Staying in an Eco-friendly Hotel									
Stay Intention	.654**	0.000	.693**	0.000	.583**	0.000	.719**	0.000	Significant
Intention to Spread Word-of-Mouth	.638**	0.000	.717**	0.000	.610**	0.000	.732**	0.000	Significant
Willingness to Pay a Premium	.528**	0.000	.631**	0.000	.587**	0.000	.652**	0.000	Significant
<i>Overall Mean</i>	.681**	0.000	.765**	0.000	.669**	0.000	.789**	0.000	Significant

** . Correlation is significant at the 0.01 level (2-tailed)

Table 7 shows the relationship between environment practices of hotels in terms of water conservation, waste reduction, and disposal practices and the behavioral stay intentions, spread word-of-mouth, and willingness to pay a premium on staying in an eco-friendly hotel when grouped according to the guests' stay intention, intentions to spread word-of-mouth, and willingness to pay a premium upon staying in an eco-friendly hotel.

Water conservation was found to be significantly related to the guests' stay intention, intention to spread word-of-mouth and willingness to pay a premium. The result implies that when there is an evident water conservation practices happening within the hotel premises, the guest's intention to stay, spread word of mouth and to pay premium willingly increases. In addition, the significant relationship between water conservation practices in a hotel and a guest's intent to prolong their stay, spread positive word-of-mouth, and willingly pay a premium highlight a growing consciousness and value alignment within modern hospitality. Evident water conservation practices resonate with guests by appealing to their environmental awareness and ethical considerations. A guest's decision to stay longer can be influenced by their connection to the hotel's commitment to sustainability, feeling aligned with the mission to conserve resources.

Hotels and destination managers are increasingly concerned about the effects of climate change and sustainable water usage, particularly in congested and water-scarce areas (Casado-Díaz et al., 2020). Additionally, Joo et al., (2018) adds that hotel guests may not have the same direct financial motivation to save water as customers have at home, when they pay their own water bills. Because hotels make more money when they can persuade visitors to save water, guests may be skeptical of a hotel's professed social objective of water

conservation.

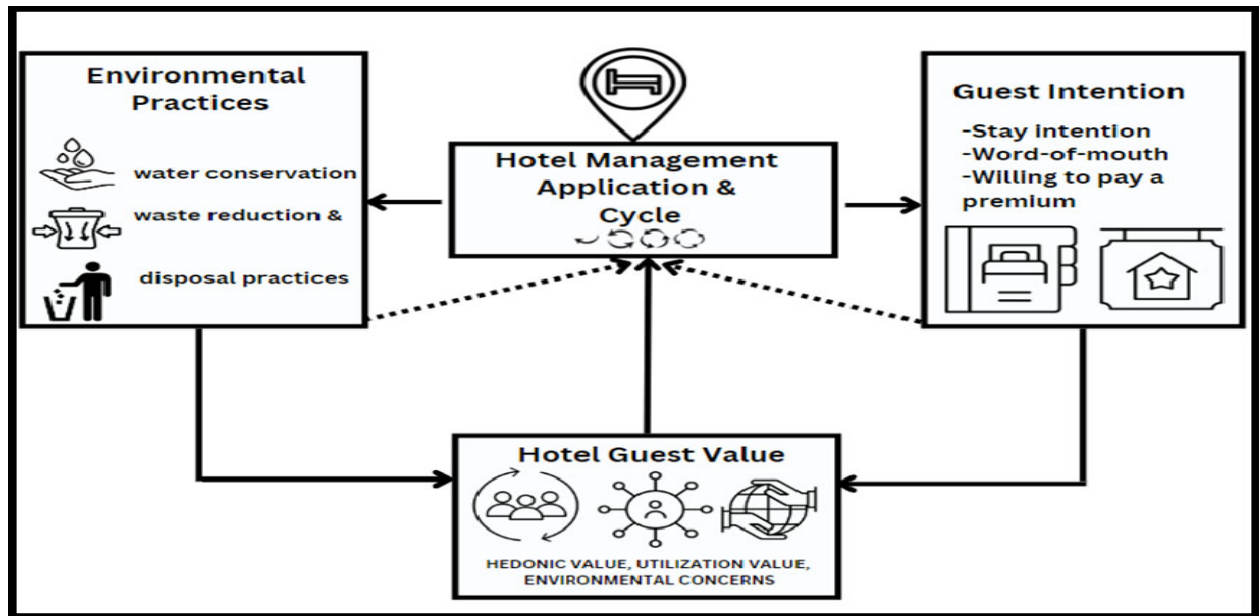


Figure 1: Carilo's Environmentally Friendly Hotel Framework in Bicol Region

This image shows a diagram of the Carilo's Environmentally Friendly Hotel Framework in Bicol Region. It is composed of several elements, including text and symbols. At the top left corner, there is a hand with water drops above it. In the center of the image, there is a black and white sign with text that reads "Hotel Management". Environmental practices have a positive impact on guest satisfaction. These include attracting environmentally conscious guests, improving brand image, reducing operational costs, and gaining a competitive advantage. Furthermore, environmentally responsible practices can increase employee satisfaction, compliance with regulations, strengthen community relationships, and contribute to greater employee satisfaction. Double-headed arrows are a symbol of the relationship between hotel guest values and environmental practices. Improvements in one area can lead to advances in the others. This cyclical feedback loop may create a virtuous circle that benefits both guests and the environment. By recognizing and leveraging the bidirectional relationship between hotel guest value and environmental practices, hotels may follow this as a sustainable business model that benefits their guests, the environment, and their bottom line. Moreover, the direct relationship between eco-friendly practices and guest intentions is illustrated by a single-headed arrow that runs from environmental practices towards guest intention. This illustrates the effect of eco-friendly efforts on guests' behavior. In order to encourage guests to become more environmentally conscious, hotels with green policies and commitments to sustainability will likely influence their decision to review, recommend, or return to the hotel. This one-headed Arrow indicates that guests will be more likely to choose hotels that have adopted and implemented environmental practices. Hotels can positively impact guest intention by focusing on the environment. This can result in increased loyalty and positive word-of mouth. Lastly, the one-directional arrows from hotel guest value, from environmental practices, and guests' intention towards to environmental cycle represent the impact of each factor on sustainability and environmental health. Each component plays an important role in making the hotel industry more sustainable and responsible, which ultimately benefits the environment.

4. Conclusions and recommendations

Most hotel guests are female Gen Y individuals with college degrees. This demographic information is crucial for hotel management to tailor marketing strategies, services, and guest experiences accordingly. It also emphasizes the importance of understanding the specific demographic of female Gen Y individuals with college degrees as many hotel guests. The data highlight the hotel's current environmental practices focusing mainly on

disposal, water conservation, and waste reduction, with room for improvement. It reveals that the primary focus of guests interested in eco-friendly hotels is the intention to stay, followed by the desire to share their experiences, and lastly, their willingness to pay extra. This finding suggests that hotel management should promote and articulate their sustainable practices to encourage longer stays, stimulate guests to share their positive experiences, and carefully price eco-friendly options to reflect value without affecting quality. It was depicted in the results that the under the environmental practices of hotel, only the disposal practices have a significant difference when grouped according to age. The relationship between environmental practices of hotels in terms of water conservation, waste reduction, and disposal practices when grouped according to hotel guests' hedonic values, utilitarian values, and environmental concern. A model was created to further strengthened the environmental practices of the hotels in the Bicol Region, furthermore, hotels can create strategies that improve guest experiences and minimize their environmental impact by acknowledging each factor's influence on the environment cycle. This will lead to a more sustainable future for industry as well as the environment.

This study recommended that the hotels in Bicol Region, they may utilize targeted marketing through social media platforms to attract female Gen Y guests. Meanwhile, the hotel managers and associations may adopt a comprehensive sustainability strategy, including energy efficiency, responsible sourcing, and eco-friendly amenities. Moreso, the hotel management may strategically design services and amenities that cater to guests' preferences for pleasure and enjoyment -hedonic aspects, while also incorporating practical and functional elements -utilitarian values. The hotel executives and the administration may craft marketing strategies that highlight and clearly explain the sustainable practices within the facility to attract those interested in eco-friendly stays. Hotels may refine their disposal practices, particularly focusing on the preferences of Generation Y guests, by evaluating and adopting sustainable methods and effectively communicating these measures. Regular updates in line with environmental standards will boost guest satisfaction and environmental contributions. Future researchers may use other variables not specified on this research and other method may be used to further update the hotels regarding the environmental practices in the Bicol Region.

5. References

- Ahmed, R. R., Streimikiene, D., Qadir, H., & Streimikis, J. (2023). Effect of green marketing mix, green customer value, and attitude on green purchase intention: Evidence from the USA. *Environmental Science and Pollution Research*, 30(5), 11473-11495.
- Al-Adwan, A. S., Li, N., Al-Adwan, A., Abbasi, G. A., Albelbisi, N. A., & Habibi, A. (2023). Extending the technology acceptance model (TAM) to Predict University Students' intentions to use metaverse-based learning platforms. *Education and Information Technologies*, 1-33.
- Agarwal, & Kasliwal. (2017, October). Going Green: A Study on Consumer Perception and Willingness to Pay towards Green Attributes of Hotels. *International Journal of Emerging Research in Management & Technology*, 6(10), Article 2278–9359.
- Asi, L. M. (2019). Environmental Sustainability Plan for Resort Hotels in CALABARZON, Philippines. *Asia Pacific Journal of Multidisciplinary. Research*, 7(4), 86-94.
- Borbon, N. M. D. (2020). Evaluation on corporate social responsibility issues in the view of hotel business in CALABARZON region, Philippines. *International Journal of Research Studies in Education*, 9(5).
- Chankrajang, T., & Muttarak, R. (2017, January). Green Returns to Education: Does Schooling Contribute to Pro-Environmental Behaviours. Evidence from Thailand. *Ecological Economics*, 131, 434–448. <https://doi.org/10.1016/j.ecolecon.2016.09.015>
- Casado-Díaz, Ana, Sancho-Esper Franco, Rodriguez-Sanchez, Carla & Sellers- Rubio, Ricardo (2022) Tourists' water conservation behavior in hotels: the role of gender, *Journal of Sustainable Tourism*, 30:7, 1518-1538. <https://doi.org/10.1080/09669582.2020.1839758>
- Demerdash, E. (2019). Millennials' Viewpoints about Sustainable Hotels'Practices in Egypt: Promoting Responsible Consumerism. *International Scholarly and Scientific Research & Innovation*,

- 13(0000000091950263).
- Dharmesti, M., Merrilees, B., & Winata, L. (2020, January 8). "I'm mindfully green": examining the determinants of guest pro-environmental behaviors (PEB) in hotels. *Journal of Hospitality Marketing & Management*, 29(7), 830–847. <https://doi.org/10.1080/19368623.2020.1710317>
- Dolnicar, S., Knezevic Cvelbar, L., & Grün, B. (2017, December 27). A Sharing-Based Approach to Enticing Tourists to Behave More Environmentally Friendly. *Journal of Travel Research*, 58(2), 241–252. <https://doi.org/10.1177/0047287517746013>
- Duric, Z., & Potočnik Topler, J. (2021, June 9). The Role of Performance and Environmental Sustainability Indicators in Hotel Competitiveness. *Sustainability*, 13(12), 6574. <https://doi.org/10.3390/su13126574>
- Haldorai, K., Kim, W. G., & Garcia, R. L. F. (2022). Top management green commitment and green intellectual capital as enablers of hotel environmental performance: The mediating role of green human resource management. *Tourism Management*, 88, 104431. <https://doi.org/10.1016/j.tourman.2021.104431>
- Han, H., & Hyun, S. S. (2018, April 17). Eliciting customer green decisions related to water saving at hotels: Impact of customer characteristics. *Journal of Sustainable Tourism*, 26(8), 1437–1452. <https://doi.org/10.1080/09669582.2018.1458857>
- Han, H., & Hyun, S. S. (2018). What influences water conservation and towel reuse practices of hotel guests? *Tourism Management*, 64, 87–97. <https://doi.org/10.1016/j.tourman.2017.08.005>
- Han H., Lee J.-S., Trang H.L.T., Kim W. (2018) Water conservation and waste reduction management for increasing guest loyalty and green hotel practices. *International Journal of Hospitality Management*. 75. 5866. 10. <https://doi.org/1016/j.ijhm.2018.03.012>
- Han, H., Moon, H., & Lee, H. (2019, December 5). Excellence in eco-friendly performance of a green hotel product and guests' pro-environmental behavior. *Social Behavior and Personality: An International Journal*, 47(12), 1–10. <https://doi.org/10.2224/sbp.8317>
- Joo, H. H., Lee, J., & Park, S. (2018, February 15). Every drop count: A water conservation experiment with hotel guests. *Economic Inquiry*, 56(3), 1788–1808. <https://doi.org/10.1111/ecin.12563>
- Kamboj, S., Matharu, M., Lim, W. M., Ali, F., & Kumar, S. (2022, May 25). Consumer adoption of green hotels: Understanding the role of value, innovation, and involvement. *Journal of Hospitality Marketing & Management*, 31(7), 819–849. <https://doi.org/10.1080/19368623.2022.2071370>
- Lema, G., Mesfun, M. G., Eshete, A., & Abdeta, G. (2019, September 12). Assessment of status of solid waste management in Asella town, Ethiopia. *BMC Public Health*, 19(1). <https://doi.org/10.1186/s12889-019-7551-1>
- Martínez, P., Herrero, N., & Gómez-López, R. (2019, April 10). Corporate images and customer behavioral intentions in an environmentally certified context: Promoting environmental sustainability in the hospitality industry. *Corporate Social Responsibility and Environmental Management*. <https://doi.org/10.1002/csr.1754>
- Nimri, R., Patiar, A., & Jin, X. (2020, December). The determinants of consumers' intention of purchasing green hotel accommodation: Extending the theory of planned behaviour. *Journal of Hospitality and Tourism Management*, 45, 535–543. <https://doi.org/10.1016/j.jhtm.2020.10.013>
- Ong, G. (2019, November 20). *Hotels, restos urged: Practice Sustainability*. Philstar.com. <https://www.philstar.com/business/science-and-environment/2019/11/21/1970423/hotels-restos-urged-practice-sustainability>
- Ouyang, Z., Wei Wei, Chi, CG. (2019). Environment management in the hotel industry: does institutional environment matter? *International Journal of Hospitality Management*, 77.
- Pham Phu, S., Fujiwara, T., Hoang, M.G. (2019) Waste separation at source and recycling potential of the hotel industry in Hoi An city, Vietnam. *J Mater Cycles Waste Manag* 21, 23–34. <https://doi.org/10.1007/s10163-018-0807-5>
- Pham, N. T., Hoang, H. T., & Phan, Q. P. T. (2019). Green human resource management: A comprehensive review and future research agenda. *International Journal of Manpower*, 40(7), 1038–1061. <https://doi.org/10.1108/IJM-07-2019-0350>
- Richards, G., & Morrill, W. (2020, January 14). Motivations of global Millennial travelers. *Revista Brasileira De*

- Pesquisa Em Turismo*, 14(1), 126–139. <https://doi.org/10.7784/rbtur.v14i1.1883>
- Si, J. N., Manalo, S. N., Mayosal, C. M., & Esplanada, D. (2020). Sustainable practices of selected tourist resort in Dasmariñas City: Basis for a proposed sustainable plan. *International Journal of Thesis Projects and Dissertations (IJTPD)*, 8(4), 24-37.
- Sun, J., Chen, P. J., Ren, L., Shih, E. H. W., Ma, C., Wang, H., & Ha, N. H. (2021, May). Place attachment to pseudo establishments: An application of the stimulus-organism-response paradigm to themed hotels. *Journal of Business Research*, 129, 484–494. <https://doi.org/10.1016/j.jbusres.2020.10.005>
- Taylor, S. (2023). Weighted Mean. <https://corporatefinanceinstitute.com>
- Urwin, S., & Sao Joao, A. (2020). Generation Y's perceived preference for green hotels. *African Journal of Hospitality, Tourism and Leisure*, Volume 9(2) (2223–814).
- Wang, J., Wang, S., Xue, H., Wang, Y., & Li, J. (2018). Green image and consumers' word-of-mouth intention in the green hotel industry: The moderating effect of Millennials. *Journal of Cleaner Production*, 181, 426–436. <https://doi.org/10.1016/j.jclepro.2018.01.250>