

Green Practices of Travel Agents and Tour Operators in Southern Cagayan Valley, Philippines

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Abstract

Purpose of the study: This study aimed to assess the green practices of travel agents and tour operators in Southern Cagayan Valley, Philippines in terms of energy efficiency, waste minimization and water consumption.

Methodology: This study used a quantitative descriptive methodology. The research instrument was adapted from Ahmad (2013). The survey respondents are fifty six (56) travel agents and tour operators in the provinces of Quirino, Nueva Vizcaya and southern part of Isabela. All data were analyzed using SPSS. To arrive at the result, the following statistical tool were used: Non-parametric test were employed to identify the significant difference including Mann-Whitney U test and Kruskal Wallis test.

Main Findings: Findings revealed that green practices along with energy efficiency were mostly practiced, and waste minimization were often executed. However, for water consumption, three items were often and other two were just rarely practiced by the respondents. This paper suggests a plan of action in enhancing green practices used by businesses in travel and tours.

Applications of the study: This paper will be useful to travel agencies and operators in creating methods and policies to further increase tourism sustainability. This could also raise awareness among tourism officers and policy makers about the nature of the prevailing business practices, enabling them to identify key concerns in management policy and the creation of new skills that will promote sustainable tourism.

Novelty/Originality of the study: This study offers fresh insights that could contribute to the deeper understanding of the green practices as well as the challenges and opportunities inherent in promoting sustainability in the tourism industry of Southern Cagayan Valley.

INTRODUCTION

Tourism and nature are intimately related because a large portion of tourism directly depends on the environmental quality of its product. The fact that tourism is not "the smokeless industry it pretends to be" (Gonsalves, 1996), it has recently come to light under the scrutiny of both the general public and experts. Often, the economic benefits of tourism come at a high price paid by environment, endangering the core assets of tourism itself: nature. The success of overpopulated destinations frequently results in pollution, waste generation, and climate change. Although it takes a while for environmental degradation symptoms to manifest, this does not stop them from happening, and many indicators are already present at popular tourist spots. The question of whether sustainability concepts could be included into tourism policies and procedures is still being discussed. A study of the current difficulties and impediments to tourism sustainability has been reviewed by several researchers including high energy use, significant water consumption, and habitat degradation. (Budeanu, 2005; Pan et al, 2018).

Gaining knowledge on the environmental view and practices of travel agents and tour operators can also help the tourism officers and policy makers learn more about the nature of the prevailing business practices, which will help them identify key concerns in management policy and the creation of new skills that will promote sustainable tourism. Greater awareness of green practices can further support the environment and the causes to protect it. This research may also be useful to academic institution, particularly those who offer courses on tour and travel management and sustainable tourism. This may also serve as the foundation for future studies on tour and travel management and its impact on the environment.

This study intends to assess the green practices of travel agencies and tour operators in Southern Cagayan Valley, Philippines. Specifically, it aims to: (1) present the firmographic profile of these travel agents and tour operators in terms of years in business, market scope and customer size (2) assess the green practices of the respondents in terms of energy efficiency, waste minimization and water consumption (3) test the difference of the responses when grouped according to firmographic profile, and (4) develop proposal or strategies to improve the greening of travel agency sector.

LITERATURE REVIEW

Green Practices in Tourism Industry

Environment-friendly actions, which can help to the environmental protection and sustainability development are referred to as "green practices" (Sanchez – Flores et al, 2020). Green practices are being adopted by businesses all over the world in an effort to lessen their negative environmental effects and boost their financial performance (Miroshnychenko, 2017).

Tourism suppliers are embracing low-carbon ideas and creating a variety of associated products, like ecologically and eco-friendly ones such as vehicles and flights, eco-friendly lodging, low-carbon tourist destinations, eco-friendly businesses, and environmentally friendly travel activities (Cheng et al, 2013).

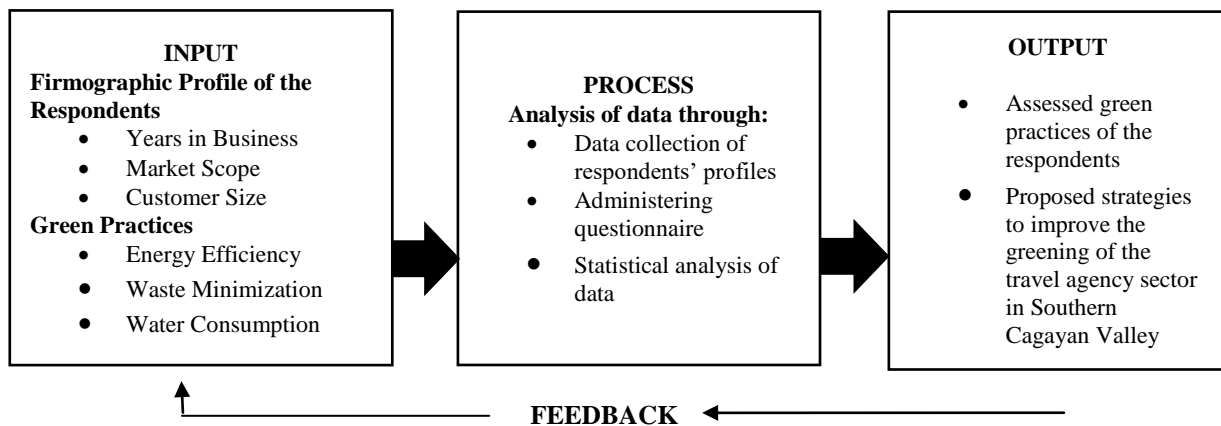


Figure 1: Conceptual Framework of the Study

Several researches have also proven the positive relationship between the green practices of tourism businesses and customer satisfaction (Kim et al, 2016, Yusof et al, 2017, Yu et al, 2017). As the environmental situation have increased pressure for sustainable tourism, the attitude of tour operators towards the environment has been gradually evolving in recent years. However, since the tour operators lack any processes in place to implement sustainable models, their role in fostering sustainable tourism is vague (Ullah et al, 2021) but because of their central role in the tourism system (Hamid, 2021), they have a significant chance of influencing the choices and actions of both tourists and suppliers. Additionally, their major distribution role and capacity to direct tourists to destinations may greatly impact and encourage sustainable tourism growth.

The travel agency and tour operator sector's green practices can be divided into three categories: energy efficiency, waste minimization and water consumption.

Energy Efficiency

Travel agents are responsible in coordinating and organizing tours for the tourists and they are the ones that select tourism suppliers such as accommodation, transportation and attraction to create a tour package. Energy efficiency strategies among the different suppliers are varied. There are many sectors now, like the accommodation that put effort in greening their business through energy and carbon efficiency.

According to the research findings of Tang et al (2017), the tourism industry as a whole and its various sectors' energy and carbon efficiency have increased as the tourism life cycle has progressed. One of the quickest and most economical methods to cut costs in business operations, lower greenhouse gas emissions and meet rising energy demand is to use energy more efficiently. The tourism industry is related to energy efficiency in practically all facets and areas (Csapo, 2013). Looking at the international scene, the development of tourism and energy efficiency are related in a way that is primarily dealt in those destinations that fall under the so-called developed nations.

Waste Minimization

Waste minimization are set of procedures and techniques are aimed to lessen the production of garbage. Research on waste minimization practices in the tourism business is typically limited in scope, largely focused on the hotel industry, and examines behaviors cross-sectionally (Qian & Scheneider, 2016). According to UNWTO, an essential component of a destination's sustainable tourism growth is solid waste management. Destinations must gauge waste output and manage its treatment. To improve sustainability, best practices, waste minimization, recycling, mitigation, and education should be promoted (Yusuf & Fajri, 2022).

Travel agents and tour operators can contribute to waste minimization by selecting suppliers that implement policies on waste reduction. One of the simplest ways to reduce waste is to prevent it, which is something tourism suppliers can do when they buy goods and services. Additionally, employee participation, training, and recognition are necessary for these waste management programs to be successful (Zorpas et al, 2020). However, effective recycling programs are unlikely to be successful without the help of the governing body like the Department of Tourism and the Local Government Unit.

Water Consumption

Water consumption is the implementation of regulations and practices by tourists and tourism suppliers. On a local, regional, and international level, tourism is being more recognized as a key water-consuming industry (Gossling, 2012) and that water conservation is increasingly seen as one of the major sustainability challenges facing the travel and tourism sector. Most of the water used in tourism is primarily utilized in the bathroom and shower, the laundry room, the kitchen, and the restroom. Lee et al (2021) investigated the tourism water footprint (TWF) and tourism energy footprint (TEF) of

138 sectors in the Chinese tourism industry from 2012 to 2017. They concluded that the water-energy-food nexus of the tourism business is critically dependent on the food supply and the aviation sectors.

METHODOLOGY

Research Design

In order to evaluate the green practices among the travel agents and tour operators in Southern Cagayan Valley, a quantitative descriptive methodology was used in this study. Quantitative descriptive research aims to gather measurable data for the population sample's statistical.

Respondents of the Study

The survey respondents are the travel agencies and tour operators in Southern Cagayan Valley identified and recognized by Department of Tourism Region 2. Fifty-six (56) out of 65 travel agents and tour operators in Quirino Province, Nueva Vizcaya and southern part of Isabela have joined this study considering the 5% margin of error and 95% confidence level using the Raosoft software. Simple random sampling is used to determine the participants.

Instrument of the Study

The instrument used to assess the green practices of the travel agencies and tour operators was adapted from [Ahmad et al \(2013\)](#). It is composed of two parts: the first part covers firmographic profiles including their years of operation, market scope and customer size. The second part assessed these travel agencies and tour operators' green practices energy efficiency, waste minimization and water consumption.

Data Gathering Procedure and Analysis

The questionnaire for assessing the green practices of travel agency and tour operators was adapted after a thorough review of the literature and then validated by experts of the field. The questionnaire was distributed online and on-site. The gathered data were then tallied and then processed using the appropriate statistical software.

Data Analysis

The respondents' firmographic profile was described using frequency and percentage distribution. Their green practices were evaluated using median. Major variables' p-values based on the Shapiro-Wilk test were less than 0.05, indicating that the data set was not regularly distributed. Therefore, the non-parametric tests were employed to identify the significant differences included the Mann-Whitney U test for two groups and the Kruskal Wallis test for three groups. The following Likert scale was used to assess the green practices: 4.00 (Always), 3.00 (Often), 2.0 (Rarely), and 1.0 (Never).

FINDINGS / RESULTS AND DISCUSSION

Table 1: Firmographic Profile of the Respondents

Profile	Specific	Frequency	Percentage
Years in Business	5 years or less	23	41.07
	6-10 years	24	42.86
	More than 10 years	9	16.07
Market Scope	National	16	28.57
	International	40	71.43
Average Number of clients per month	50 pax or less	29	51.79
	51-100 pax	9	16.07
	101-200 pax	18	32.12
n=56			

Table 1 shows the firmographic profile of the respondents. Majority of travel agencies and tour operators in Southern Cagayan Valley have been in the industry for 6-10 years, catering international clients with customer size of 50-100 pax per month.

Table 2 shows the green practices of travel agencies and tour operators in terms of Energy Efficiency. It is evident in the computed median that to save energy, the respondents use natural ventilation lighting all the time. Similarly, they always make use of energy-saving products and practiced turning off lights and other appliances when leaving their office. With the advent of minimalist design, most offices nowadays are planned to be more pleasant, open floor, well-lighted and ventilated. Also, inverter appliances are preferred not only by travel agencies but most businesses even if they are more costly because it reduce electricity consumption and will be more economical in the long run. Furthermore, with the increasing cost of electricity, it is no surprise that travel agencies will create company rules and practice energy saving habits in their offices like turning off appliances when not in use.

Table 2: Green Practices of Travel Agencies and Tour Operators in term of Energy Efficiency

Statement	Median	Description
I use natural lights and ventilation in the office to reduce energy consumption.	4.0	Always
I use energy efficient lights.	3.0	Often
I use energy-efficient or energy star-rated products.	4.0	Always
I monitor electric usage of our office to reduce energy consumption.	3.0	Often
I switch off all lights and air-condition units when leaving the office.	4.0	Always

Legend: 3.50–4.00 (Always) (A), 2.50–3.49 (Often) (S), 1.50–2.49 (Rarely) (O), and 0.50–1.49 (Never) (N)

The use of energy efficient lights and monitoring of light usage is also practiced often by the respondents. Using LED products to reduce electric consumption is very eminent not only in the household but also in most enterprises. Also, as mentioned, the increasing cost of electricity forced many businesses to monitor and strategize to cut their operating expenses. [Lu et al \(2020\)](#) highlighted that the energy-efficiency standard, which is dynamic and updated based on the most recent technologies, is one of the most effective methods for reducing energy use in buildings. In fact, numerous studies have confirmed the effectiveness of renewable energy sources like LEDs and solar panels ([Azcarate et al, 2016](#); [Enongene et al, 2017](#); [Mohandas et al, 2019](#)).

Table 3 shows the green practices among travel agencies and tour operators in terms of waste minimization. Based on the data, all statements got the same median of 3.00 which further implies that the respondents often observe all the given green practices along with waste minimization. Most of the times, travel agencies and tour operators transact with clients online and there is no need for them to print brochures and advertising materials because they can simply post advertisements in various online platforms as supported by various researches ([Setiawan & Widanta, 2021](#)), ([Wicaksono & Maharani, 2020](#)), ([Sharma et al, 2020](#)). Correspondingly, provinces in Region 2 have been very compliant with RA 2003 or the Solid Waste Management that requires every establishment to provide 3 recycle bins to encourage waste segregation.

Table 3: Green Practices of Travel Agencies and Tour Operators in term of Waste Minimization

Statement	Median	Description
I avoid printed handouts and, if it was essential, used recycled or eco-friendly paper.	3.0	Often
I save important documents to a USB drive to reduce paper use and encouraged reuse instead of disposal.	3.0	Often
I avoid single-use, disposable toiletries and food packaging where possible.	3.0	Often
Recycle bins were used during the tour I organized to encourage waste separation.	3.0	Often
Waste was separated in a way that it could be treated separately by the municipal or private waste disposal facilities.	3.0	Often

Legend: 3.50–4.00 (Always) (A), 2.50–3.49 (Often) (S), 1.50–2.49 (Rarely) (O), and 0.50–1.49 (Never) (N)

Also in Quirino province, single-use plastic is prohibited. However, waste minimization in the post pandemic can't be practiced all the time. Using single use, disposable items has now been the norm to avoid the spread of virus especially in big gathering that involves many participants like company tours or group tours. Numerous rules that forbade the use of plastic bags have been put on hold or delayed as a result of the pandemic. [Barroga & Borbon \(2021\)](#) found that the pandemic caused to lesser recycling activities and an increased requirement to use plastic like disposable utensils, face shields, and other PPEs in tourism establishments in Quirino province. In addition, when in a tour, it will also be hard for the tour organizers and operators to totally avoid using plastic bottles and disposable food containers because tourists do not bring their own tumblers or food containers. Food served to tourists will also require the usage of plastic food wraps or containers for sanitation purposes.

The methods used in the manufacturing, processing, packing, distribution, and disposal of food have a negative impact on human and environmental health ([Linstadt et al., 2020](#)). It is expected from travel agencies and tour operators that they make tourism and conservation compatible by minimizing or recycling waste and consumption and by using resources in a sustainable way. The study of [Pam et al \(2018\)](#) revealed that the implementation of waste management in accommodations in a city in Vietnam has produced relatively positive results, with 76% of them sorting, 39% recycling, 29% reduction, and 0.8% composting wastes.

Table 4 shows the green practices of travel agencies and tour operators in terms of water consumption. Respondents claim that they often select suppliers based on their water conservation practices and water conservation policies. They also often serve water in reusable bottles or provided jugs of water instead of using bottled water. Water management in tourism industry is increasingly pressing. [McClellan et al 2017](#) studied on the factors influencing water use in the Asia-Pacific region's tourism industry and opportunities for water-saving. They found out that low/dual flush toilets can significantly conserve water. Concomitantly, [Casado-Diaz et al \(2022\)](#) highlighted that accommodation and destination managers are increasingly voicing concern about sustainable water use, particularly in busy and water-scarce regions. Furthermore, [Gossling et al \(2012\)](#) concluded that preemptive water management is advised, especially for tourist destination where water is already scarce, given the anticipated changes in worldwide precipitation patterns caused by climate change.

Table 4: Green Practices of Travel Agencies and Tour Operators in term of Water Consumption

Statement	Median	Description
I select tourism suppliers (transportation, accommodation, food and beverage establishments, etc.) based on their water conservation practices (policies and actions), as well as made the delegates aware about them.	3.00	Often
I avoided using bottled water, where possible, by providing jugs of water or filtering and serving water in reusable bottles	3.00	Often
Logistics options included selecting accommodation establishments that promoted water conservation policies, such as towel and linen laundry policies where delegates could choose either to replace or reuse the towels or linen in their rooms.	3.00	Often
I choose tourism suppliers select tourism suppliers (transportation, accommodation, sites, tour guides, etc.) that employed rainwater harvesting (or recycled water collection) for non-potable purposes (e.g., flushing of toilets, watering of green areas).	2.00	Rarely
I choose tourism suppliers (transportation, accommodation, sites, tour guides, etc.) that minimized water use in restrooms (i.e., the toilets, urinals, taps, showers) by reducing water flow, installing timers or sensors, and fitting other water-efficient devices.	2.00	Rarely

Legend: 3.50–4.00 (Always) (A), 2.50–3.49 (Often) (S), 1.50–2.49 (Rarely) (O), and 0.50–1.49 (Never) (N)

On the other hand, travel agencies and tour operators rarely base the selection of the suppliers on its water recycling practices on whether or not supplier has water-efficient devices. More often, their selection is influenced by client's preferences and on the supplier's pricing (Kim et al, 2019) and the unmatched value that the certain supplier can provide (Christodoulidou et al, 2010). Suppliers that are cheaper are more preferred because it will enable them to offer more affordable tour package to clients. Respondents in the study of Millar & Baloglu (2011) were supportive of accommodation establishments with conservation devices but they are not willing to pay more to stay in a "green" hotel. Additionally, Gabardda-Mallorqui et al (2021) discussed a case where guests with different levels of environmental awareness and eco-friendly behavior still avail services from hotels that practice water-conservation.

Table 5 presents the Kruskal Wallis Test Green Practices of the Respondents along Energy Efficiency when grouped by years in business. A significant difference responses was observed along Energy Efficiency in terms of the use of natural lights and ventilation, the use energy-efficient lights as well as the use of energy-efficient products. The findings revealed that tour and travel agencies operating for less than 5 years and more than 10 years use natural lights, ventilation and energy lights more often than those in business for 6-10 years. Since they are just starting up, it is more likely for younger businesses to focus on making ends meet and this has impacted a manager's desire to invest in lighting energy-saving/efficient technologies. Certain advances, especially in the field of energy efficiency, involved more costs but will financially beneficial in the long run.

Table 5: Kruskal Wallis test Green Practices of the Respondents in terms of Energy Efficiency when they are Grouped by Years in Business

Statements	5 years or less		6-10 years		More than 10 years		U	p-value	Decision
	Median	Des	Median	Des	Median	Des			
I use natural lights and ventilation in the office to reduce energy consumption.	4.00	A	3.00	O	4.00	A	9.675	.026	Reject Ho
I use energy-efficient lights.	4.00	A	3.00	O	4.00	A	9.193	.015	Reject Ho
I use energy-efficient or energy star-rated products (e.g., computers, printers).	4.00	A	3.50	A	4.00	A	4.356	.048	Reject Ho
I monitor electric usage of our office in order to reduce energy consumption in the succeeding months.	3.00	O	3.00	O	4.00	A	7.109	.215	Failed to reject Ho
I endeavored to switch off all lights and air-conditioners when leaving the office.	4.00	A	3.50	A	4.00	A	12.752	.075	Failed to reject Ho

p-value of .05 and below are significant and above .05 are not significant

This result is however in contrasts with the study of Borbon (2021) on the green practices management enterprises which reveals that younger events managers typically used their beginning years in building their reputation and image and focused less on other aspects such as environmental practices. On the other hand, those operating for 6-10 years are on the peak of its business and may have failed to revisit or implement their energy-saving policies because they are more focused on other aspects like sales and marketing. Travel agencies that existed for more than 10 years however had greater median compared to 6-10 years. These seasoned have greater understanding of the benefits of implementing green practices along energy efficiency because they are operating for a longer period. This is supported by the findings of Nguyen (2020) that

the influence of different factors like environmental awareness of senior managers has significant effects on the implementation of environmental accounting in the mining enterprises in Binh Dinh province.

Table 6 displays of the Mann-Whitney U-Test Green Practices of the Respondents in terms of Energy Efficiency when grouped by market scope. The table shows that there is a significant difference on responses in the use of energy-efficient or energy star-rated products. The findings revealed that travel agencies that operate in a national level used energy efficient and star-rated products more frequently than those operating in the international level.

Table 6: Mann-Whitney U-Test Green Practices of the Respondents in terms of Energy Efficiency when they are Grouped by Market Scope

Statements	National		International		U	p-value	Decision
	Median	Des	Median	Des			
I use natural lights and ventilation in the office to reduce energy consumption.	3.50	A	3.00	O	298.500	.662	Failed to reject Ho
I use energy-efficient lights.	4.00	A	3.00	O	242.500	.109	Failed to reject Ho
I use energy-efficient or energy star-rated products (e.g., computers, printers).	4.00	A	3.00	O	187.000	.006	Reject Ho
I monitor electric usage of our office in order to reduce energy consumption in the succeeding months.	3.00	O	3.00	O	291.500	.566	Failed to reject Ho
I endeavored to switch off all lights and air-conditioners when leaving the office.	4.00	A	3.00	O	239.000	.097	Failed to reject Ho

p-value of .05 and below are significant and above .05 are not significant

The use of energy-efficient appliances benefits both the community (lower GHG emissions and other criteria air pollutants) and the business itself (lower power bills). For smaller market scope, this study hypothesize that they had less revenue that's why they implemented green practice to reduce expenses and increase profit. According to the study of [Cekanavicus \(2014\)](#), Lithuanian businesses have shown recognition of the potential for increased revenue that comes with going "green".

Presented in Table 7 is the Kruskal Wallis Green Practices of the Respondents in terms of Water Consumption when grouped by years in business. The table shows that there is a significant difference on responses in terms of serving water in reusable containers and in selecting accommodation establishments when grouped by years in service. Those respondents that has been in the industry for 5 years or less avoid using bottled water more often. Similarly, younger travel agencies also prefer accommodation establishments that encourage water saving measures. However, respondents who are in the business for 6-10 years rarely base their selection on supplier's water conservation policies. Greening of tourism industry was just introduced in the Philippines and is slowly evolving towards sustainable development.

Table 7: Kruskal Wallis Green Practices of the Respondents in terms of Water Consumption when they are Grouped by Years in Business

Statements	5 years or less		6-10 years		More than 10 years		KW	p-value	Decision
	Median	Des	Median	Des	Median	Des			
I select tourism suppliers (transportation, accommodation, food and beverage establishments, etc.) based on their water conservation practices (policies and actions), as well as made the delegates aware about them.	3.00	O	3.00	O	3.00	O	3.006	.222	Failed to reject Ho
I avoided using bottled water, where possible, by providing jugs of water or filtering and serving water in reusable bottles	3.00	O	3.00	O	3.00	O	7.881	.019	Reject Ho
Logistics options included in selecting accommodation establishments that promoted water conservation policies, such as towel and linen laundry policies where delegates could choose either to replace or reuse the towels or linen in their rooms.	3.00	O	2.00	R	3.00	O	9.016	.011	Reject Ho
I choose tourism suppliers select tourism suppliers (transportation, accommodation, sites, tour guides,	2.00	R	2.00	R	3.00	O	3.949	.139	Failed to reject Ho

etc.) that employed rainwater harvesting (or recycled water collection) for non-potable purposes (e.g., flushing of toilets, watering of green areas).

I choose tourism suppliers (transportation, accommodation, sites, tour guides, etc.) that minimized water use in restrooms (i.e., the toilets, urinals, taps, showers) by reducing water flow, installing timers or sensors, and fitting other water-efficient devices.	3.00	O	2.00	R	2.00	R	5.294	.071	Failed to reject Ho
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p-value of .05 and below are significant and above .05 are not significant

In the recent years, people are becoming more environmental conscious. Plastic bottles or items made of plastic are already prohibited or used less frequently in several parts of the country. Concern over the effects of climate change and sustainable water use is growing among hotels and destination operators (Casado-Diaz et al, 2022). Likewise, Merli et al (2019) highlighted that customers appreciate the hotels' dedication to the environment, and this has a big impact on customer happiness and loyalty. According to (Sung et al, 2021), travel agencies that engage in low carbon tours makes sure that their selected suppliers are actively working to reduce carbon footprint it does not only affect the tourists' trust but it also plays a role in their marketing strategy that adheres to current trends in green demand (Chen, 2019). Those who were new to the industry quickly embraced these new methods because it has already been introduced and practiced before they enter the business, and they perceived the effect of committing in such green attributes in the success of their business.

Table 8 shows the Mann-Whitney U-Test Green Practices of the Respondents in terms of Water Consumption when they are Grouped by Market Scope. The findings revealed that travel agencies operating in a national level choose tourism suppliers that practice water-saving and water-reduction by using water efficient devices. Travel agencies with national market scope are more familiar with the choices of their clients because they are just within the Philippine border. International clients typically have higher expectation and seeks for high quality services that's why selecting the supplier with a superior quality is very vital and its green practice on water consumption may not be well-thought-out.

Table 8: Mann-Whitney U-Test Green Practices of the Respondents in terms of Water Consumption when they are Grouped by Market Scope

Statements	National		International		U	p-value	Decision
	Median	Des	Median	Des			
I select tourism suppliers (transportation, accommodation, food and beverage establishments, etc.) based on their water conservation practices (policies and actions), as well as made the delegates aware about them.	3.00	O	3.00	O	312.000	.874	Failed to reject Ho
I avoided using bottled water, where possible, by providing jugs of water or filtering and serving water in reusable bottles	3.00	O	3.00	O	313.500	.889	Failed to reject Ho
Logistics options included selecting accommodation establishments that promoted water conservation policies, such as towel and linen laundry policies where delegates could choose either to replace or reuse the towels or linen in their rooms.	3.00	O	3.00	O	235.500	.092	Failed to reject Ho
I choose tourism suppliers select tourism suppliers (transportation, accommodation, sites, tour guides, etc.) that employed rainwater harvesting (or recycled water collection) for non-potable purposes (e.g., flushing of toilets, watering of green areas).	2.50	R	2.00	R	318.000	.969	Failed to reject Ho
I choose tourism suppliers (transportation, accommodation, sites, tour guides, etc.) that minimized water use in restrooms (i.e., the toilets, urinals, taps, showers) by reducing water flow, installing timers or sensors, and fitting other water-efficient devices.	3.00	O	2.00	R	165.000	.002	Reject Ho

p-value of .05 and below are significant and above .05 are not significant

Additionally, Philippines is a country that are faces significant challengers in water access and are more conscious of water conservation practices. Tsagarakis et al (2011) that visitors from countries with high levels of energy awareness are more likely to select and pay for accommodations at hotels with renewable energy sources. Liu et al (2019) looked at how the effect of quality of environment differs to domestic and foreign tourists. He further corroborated that international and

domestic visitors respond differently to the environmental quality. On the other hand, the study of [Han & Hyun \(2018\)](#) demonstrated that moral norm, predicted feelings, and everyday water conservation behavior were all major influences on visitors' intention to conserve water.

Table 9 presents the proposed action plan aimed at enhancing the green practices of travel agents and tour operators in Southern Cagayan Valley. This plan outlines strategic approaches tailored to address areas requiring improvement in sustainability initiatives.

Table 9: Proposed Action Plan

Key Result Areas	Proposed Strategy	Outcome
Energy Efficiency: Use of energy efficient lights. This aims for a long-term economic benefit. Monitoring electric usage. This aims to involve all staff of the agency in energy conservation.	Investment in energy-efficient lights and appliances by travel agency managers. Travel agency managers may incentivize staff for reducing electric bill through energy efficiency practices, encouraging their participation in conserving energy.	A significant reduction in electricity usage will be achieved. Staffs will be more engaged and conscientious in energy conservation
Waste Minimization This aims to promote responsible waste practices by all tour participants	Installation of visible signages of solid waste management and segregation in buses (during tours) and tour sites by travel agents and tour operators as a constant reminder of the adherence to RA 9003.	Minimized waste, lesser plastic use, and more mindful and responsible tourists
Water Consumption: Increased awareness and patronage for suppliers with water conservation and recycling activities. This aims to raise awareness to all tourism stakeholders and encourage environmentally friendly tourism businesses	Department of Tourism (DoT) in collaboration with the Department of Environment and Natural Resources DENR may award tourism suppliers with water conservation and recycling practices for the awareness and better patronage by travel agencies. List of such may be uploaded in the DoT websites for recognition by tourists and all tourism stakeholders.	Tourism suppliers (hotels, transport services, attractions etc.) will be encouraged to adopt eco-friendly practices and be mindful of their water consumption

CONCLUSION

Findings revealed that green practices along with energy efficiency were mostly practiced, and waste minimization were often executed. However, for water consumption, three items were often and other two were just rarely practiced by the respondents. This paper suggests a plan of action in enhancing green practices used by businesses in travel and tours. Based on the findings of this study, it is recommended that travel agents be more aware and be more devoted in implementing green practices not only in their offices but in the tours that they organize. The organization of travel agency may have a person-in-charge to be the leader in implementation and monitoring of these green practices. Additionally, the Department of Tourism Region 2 (DoT-R2) in collaboration with the Department of Environment and Natural Resources (DENR) may conduct annual trainings and seminars on environmental issues to all the tourism suppliers especially the travel agencies. Their crucial role and power to influence tourism suppliers and tourists is very much important in the growth of sustainable tourism in the Region.

LIMITATION AND STUDY FORWARD

This study may be limited in scope as it only focus on a specific geographical area and type of tourism business. Future research may conduct studies on other tourism businesses like accommodation or transportation sector to also give emphasis on the role and potential of each sector in tourism sustainability. They may also use other variables of green practices since this study is only limited to three aspects.

CONFLICT OF INTEREST AND ETHICAL STANDARDS

The author declares no conflict of interest regarding the conduct of this study. Additionally, there is no financial or personal relationship with individuals or organization that could potentially cause bias in the result or findings of this study.

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