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Green Initiatives of Restaurants in the Cities of Cebu, Philippines: Basis for Environmentally Sustainable Operations

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***Abstract*—** Relentless global warming calls humanity demands unyielding mitigation measures. This study assessed the green initiatives of restaurants in three highly urbanized cities of Cebu, Philippines. This study applied the predictive relational research method. Using a purposive sampling technique, 124 informants were randomly selected from 12 restaurants. Survey questionnaires were used and data were subjected to a simple percentage, weighted mean, and One-Way ANOVA. Results revealed that the majority of the respondents were within 21 to 30 years old, males, single, college graduates, rank-and-file employees, and had been working in the restaurants for 1 to 3 years. The majority of the restaurants had been operating for five years or more, offers European cuisine, had a capitalization of PhP5,000,000.00 and seating capacity of 101 to 150 customers at a time. Further, management fully implemented green initiatives in terms of energy efficiency, water conservation, and waste management. However, the most critical issue is policy implementation. Lastly, there is no significant difference in the assessment of the respondents on the extent of implementation of the green initiatives according to location and job designation. The perceived adherence to environmentally-directed operations moreover did not necessarily reflect relevant actions towards environmental sustainability.

***Keywords*—** Global warming, predictive research, restaurant business, environmental conservation, and waste management, Cebu, Philippines.

INTRODUCTION

Climate changes have some effects on farming, flora and fauna, ecosystems, water forms, fisheries, as well as human actions and structure. Society adapts to adjust the potential effects of climate change (Barros & Field, 2014). The social and economic status of the community and all living organism are affected due to numerous significant factors of climate change and other environmental degradation (Maichum et al., 2016).

The rapid growth of global economies that rising trend of consumers worldwide has caused an impact of overutilization of natural resources that leads to severe environmental deprivation (Mei et al., 2012). Going green initiatives are established in every organization to an individual in response to global warming which also benefits to reduce expenses, carbon footprint, and promote social responsibility. Going green is to help firms as well as creating a good career (Kane, 2012).

Becoming environmentally viable is useful for nature, for the eateries and restaurants it acquires new customers, it saves money to reduced energy and water use, and through recycling, it adds revenues. In the end, green restaurants offer foods with better tastes (Russel, 2010).

It has become a common observation that there are many restaurants in highly urbanized cities, which have become tourist attractions to foreigners, visitors, and the like. It is the concern of the present undertaking to assess the green initiatives of the restaurants in three major cities in Cebu. Most of these restaurants are situated at the center of a field of sustainable growth (Freeman, 2011). In the previous decade, green practices and reasonable materials have turned out to be progressively increasingly conspicuous, explicitly in the domain of unique occasions (Roth, 2013).

The food industry is in the development of attaining sustainability with mitigation on environmental destruction, especially on global warming.

However, most restaurants, the existing practices of the restaurant operating in Cebu do not lead towards a reduction in energy and water consumption. Hence, these establishments cannot be considered sustainable fully.

FRAMEWORK

The collective ability to sustain humanity has been given much emphasis on the global development agenda over the last three decades. This focus on sustainability signals recognition of the interconnectedness of all life on Earth. The health of the Earth depends on the situation of all its parts which people need to pay more attention to it. (UN WCED,1987). The people inhabit a planet where everything and everyone is inevitably connected (Curran, 2009).

Going green is not merely recycling but to live a healthy life, and to the community with natural environmentally friendly that is sustainable. The aforementioned also causative and upholding the balance of its natural ecological systems and resources (Odum, 2008).

According to a 2011 study by MIT, most companies now, green practices are a vital component to maintain competitively and contributing more profits. These are some reasons for going green include green product demand, savings money, energy, water, waste, green building practices, and conservation.

Green Product Demand. Consumers nowadays are preferred to buy and consume goods that are environmentally responsive to preserve the nature (Chen & Deng, 2016). Going green products do not pollute the environment and it becomes environmentally friendly. (Mei, 2012).

Energy. Installation of innovative air condition and kitchen system in Otani, Japan, reached a 14% savings in energy and a decrease of 30% carbon productions (Ernst & Young, 2008).

Water. The primary needs of all living organism on Earth, but the water tables are falling and other forms of fresh water are drying. It is necessary the water conservation in all areas of the world. In the implementation of simple water conservation methods, 50% is estimated of water consumption were families can save as well as it saves the energy consumption and costs of sewage treatment. In Washington D.C., the Willard Intercontinental hotel has applied water-free urinals that save of 95,000 gallons of water in 2005 (Willard Intercontinental Hotel, 2009).

Waste. The application of the waste management systems in all hotel establishments can help the reduction of waste through reduce, reuse, and recycle concepts. (Green Hotelier Association, 2004). Solid waste in a hotel that can be recycled or reused is around 54 percent. (Alexander, 2002). According to Bohdanowicz (2005) that waste materials in an accommodation facility will range 50-60 percent that can be recycled or reused.

Green building practices. The development of green building practices is mere can save energy and water consumption while reducing dangerous waste. For example, that provides environmentally- friendly, cutting- edge, and luxury structures that entice a green hotel is the Orchid Hotel in Mumbai, India (Jones, 2002).

Conservation. The tourism industry who operates within the natural tourist attraction should effort on natural habitats conservation. This to avoid outnumbered all known species in the future generation. To preserve and protect the natural environment and species, some of the hotels are implemented green practices on their operation. For example, the resort in El Nido, Palawan is actively protecting and preserving the giant clams garden as well as the endangered cockatoos for the restoration (Ernst & Young, 2008).

For ecological management, the National laws demand waste reduction specifically in the lodging establishment where the significant large volumes of waste are produced. The two current national laws such as the Ecological Solid Waste Management Act of 2000 or the Republic Act 9003 and the Clean Water Act of 2004 or the Republic Act 9257 provided the processes and regulations. Whereas, Republic 7472 amends Section 1 of the Republic Act No. 7472 to rationalize the resource management of water of the Boards of Restaurants and Fast Food Chain establishments and an act enhancing the tourism industry by promoting water conservation (Atienza, 2009).

Most of the commercial building's particularly in the lodging establishment and food industry consumed the cost of energy for about 30 percent and it is increasing to 6- 8 percent every year. The restaurant has consumed a large amount of energy compared to other commercial establishments due to the kitchen operation and the rest (Johnson, 2010). And according to the study of (Tampa City Government, 2010) the average rate of restaurant water consumption is 5,800 gallons per day. Some establishments installed aerators fixtures to the water stream to reduce the water consumption. For the dirty

dishes, the installation of pre-rinse valves can help to reduce water consumption (Reed, 2005).

OBJECTIVES OF THE STUDY

This investigation aimed to assess the green initiatives of the restaurants operating in the three cities of Metro Cebu such as Cebu City, Lapu-Lapu City, and Mandaue City to be able to craft an intervention scheme for the full adoption of the environmentally-directed management system. Specifically, this investigation assessed the profile of the participants and the restaurants. It further determines the extent of the application of green practices in the areas of energy efficiency, water conservation, and waste management.

RESEARCH METHODOLOGY

This study applied the predictive relational research method. The research was conducted in the three (3) highly urbanized cities in Metro Cebu such as Lapu-Lapu, Mandaue, and Cebu City since it is where numerous restaurants were operating.

Using a purposive sampling technique, the respondents of the study were the one hundred twenty-four (124) personnel comprising of supervisors, rank-and-file, and general services employees from the twelve (12 restaurants in the abovementioned cities. The study made use of a researcher-made survey questionnaire, which consisted of three parts. The contents of the survey tool were based on the provisions of the features and guidelines from several laws and legislations related to energy efficiency, water conservation, and waste management. the permission to conduct the study was sought from the managers of the restaurants. After the consent was granted, the questionnaires were pre-tested to ensure the validity and accuracy of the instrument.

For data analysis, a simple percentage, weighted mean and One-Way ANOVA was used.

RESULTS AND DISCUSSIONS

This section presents the data on the profile of the respondents, restaurants and green practices.

Table 1. *Profile of the respondents (n=124)*

Profile	Cebu City		Mandaue City		Lapu-Lapu City		Total	
	f	%	F	%	f	%	f	%
Age								
21 to 30 years old	37	77.08	35	97.22	39	97.50	111	89.52
31 to 40 years old	11	22.92	1	2.78	1	2.50	13	10.48
Gender								
Male	33	68.75	23	63.89	30	75.00	86	69.35
Female	15	31.25	13	36.11	10	25.00	38	30.65
Civil Status								
Single	35	72.92	24	66.67	40	100.00	99	79.84
Married	13	27.08	12	33.33	0	0	25	20.16
Educational Attainment								
High School Graduate	10	20.83	0	0	0	0	10	8.06
College Level	13	27.08	17	47.22	9	22.50	39	31.45
College Graduate	25	52.08	19	52.78	31	77.50	75	60.48
Job Designation								
Supervisor	7	14.58	5	13.89	4	10.00	16	12.90
Rank and File	37	77.08	27	75.00	32	80.00	96	77.42
General Services	4	8.33	4	11.11	4	10.00	12	9.68
Length of Service								
Less than 1 year	12	25.00	7	19.44	6	15.00	25	20.16
1 to 3 years	24	50.00	29	80.56	20	50.00	73	58.87
3 to 5 years	12	25.00	0	0	10	25.00	22	17.74
5 years and more	0	0	0	0	4	10.00	4	3.23

As reflected in Table 1, the majority (89.52%) of the respondents belonged to the age bracket of 21-30 years old, while only 10.48% were aged within 31-40 years old. Usually, restaurants preferred to employ personnel who belong to the young adulthood age since the work in the restaurant is physically intensive and dynamic in which younger people are capable of doing.

In Erick Erickson's principle on adult development, the early adulthood period occurs when the individual is already mature, starts to accept responsibility, and task-oriented performing duties and responsibilities (Hurlock, 2004). These traits are the requirement in the restaurant business set up.

In terms of gender, males outnumbered females at a ratio of about 1:2 or 1 female for every two males. This an indication that the restaurant industry's workforce preferred males over the females since the males a more capable of doing jobs such as bussing the table, taking and serving orders, as well as n setting up the dining tables while females are usually tasked to perform the cashiering function and reception assistance.

McBride (2006) posits that the nature of the work in the restaurant is fitted for males because men are more inclined to prepare and cook food with exquisite taste, coupled with their skills in the arrangement and their creativeness and innovativeness.

Also, the results revealed that the majority (79.84%) of the respondents were still single at the time of the survey, while married ones comprised only of 20.16%. This data relates to the age of the respondents since predominantly; they were still at their 20's whose focus is a career rather than settling down or having a family. Hence, it is a common observation that those workers who are single are more flexible with their time and they can be assigned in different and broken schedules.

Moreover, they can be easily required to work overtime. The selected restaurants preferred to employ singles because their usual closing time is up to midnight or late evening.

However, this does not mean that those married individuals were not given equal employment opportunities since the managerial positions are usually subscribed by older employees although they are married since their function requires decision making and management of the entire operation and people which requires maturity.

In terms of educational attainment, most or 60.48% of the respondents were college graduates but there was a minimal number, comprising 31.45% who were college level. That personnel who were college graduates were assigned in jobs to deal and promote the products and services offered by the restaurants and they are preferred due to the demand of work and ability to analyze the situation in the workplace.

Moreover, those employees who were college level and high school graduates were assigned as a steward and to look after other sections in the restaurants like production and preparation of the food products.

The findings revealed that in terms of job designation, the majority (77.42%) of the respondents were rank and file employees.

In the restaurant business, it only needs 1-2 supervisors and the rest are rank and file employees who perform separate tasks in the production, cashier, customer service and stewarding while the supervisors are responsible for monitoring the overall performance of the restaurant's operation.

On the other hand, restaurants hired general services (9.68%) who would be responsible for the cleanliness, safety, and security of the restaurant vicinity. In most cases, this person was hired from security and general services agencies since in this manner the personnel already trained to perform their tasks.

In terms of the length of service, the majority or equivalent to 58.87% of the respondents had been working in the restaurant for less than three years, while there were only 3.23% of them stayed in their present job for five (5) years and more. Well, restaurants, had to be competitive to be able to sustain their business in the long run.

Being new, there is a need for the employees to be properly motivated to be satisfied and ensure loyalty to the company.

The length of service is a factor that affects the satisfaction and contentment in the performance of duties and responsibilities (Sison, 2007).

Table 2. Profile of the restaurants in Cebu (n=12)

Profile	Cebu City		Mandaue City		Lapu-Lapu City		Total	
	f	%	F	%	F	%	f	%
Years of Operation								
1 to 3 years	0	0	3	25.00	0	0	3	25.00
3 to 5 years	2	16.67	1	8.33	1	8.33	4	33.33
5 years and more	2	16.67	0	0	3	25	5	41.67
Capitalization								
Php 2.5 to less than 5.0 M	1	8.33	2	16.67	2	16.67	5	41.67
Php 5,000,000.00 and more	3	25.00	2	16.67	2	16.67	7	58.33
Seating Capacity								
100 customer and less	1	8.33	2	16.67	0	0	3	25.00
101 customers to less than 150 customers	3	25.0	2	16.67	3	25.00	8	66.67
151 customers and more	0	0	0	0	1	8.00	1	8.33
Type of Cuisine/Menu								
Asian	0	0	0	0	1	8.33	1	8.33
European	1	8.33	2	16.67	2	16.67	5	41.67
American	2	16.67	0	0	0	0	2	16.67
International	1	8.33	2	16.67	1	8.33	4	33.33

The majority or equivalent to 41.67 % of the restaurants in Cebu had been open for business for more than five (5) years, while there were 25% who had been in the business for one year to less than three (3) years. This data is an indication that the restaurants had been doing well in the market, especially financially. This result further signifies that these restaurants had successfully maintained good standing in the community and were able to build the right image. Some of these restaurants had even opened other branches and are still planning to branch out to several locations due to the continuation of more influx of more diners.

On the other hand, capital is needed in acquiring raw materials, training of the employees, and for operating expenses. It is an essential investment in either in the form of money, machinery, land, time, and management skills and none of any business activity that can operate without capital outlay. As to capitalization, there were seven (7) restaurants, consisting of 58.33% that had a capitalization of Php 5,000,000.00 and more, while the remaining five (5) or 41.67% had a capital of less than Php 2,500,000.00 to less than Php 5,000,000.00. This data indicates that the restaurants that were included in the study belong to the category of small to medium enterprises.

Moreover, in running the restaurant business the amount of capital depends on the size and its seating capacity. Another consideration is how much money needed in operating a restaurant is its design and ambiance. Likewise, capital investment relies also on the type menu or cuisine it intends to offer to the customers.

With regards to seating capacity, two of the restaurants in Cebu City revealed that a seating capacity of fewer than 100 persons is suitable for a minimal investment, but three restaurants showed 100 to 150 seats are enough to accommodate more significant numbers of customers or diners at a time. In Mandaue City, two of the restaurants have a seating capacity of 100-150 persons while another two can only accommodate at least 50 - 100 persons.

In terms of seating capacity, the majority or equivalent to 66.67 % of the restaurants had can accommodate 101 to less than 150 customers at one time. Moreover, some restaurants can also serve 151 customers and more at a time. The seating capacity of the restaurants is essential for the customers to stay and patronize the establishment because seats are available at any one time and reservation can be made in advance for the diners to ensure availability of sets they arrived at the restaurants. A seating capacity of 150 persons and above is enough to accommodate more guests and tourists, especially during peak seasons or hours to obtain optimum customer satisfaction and gain more revenues. So, when the restaurant had maximized its earning capacity, then they can afford to open new branches or even expand their operation to another area.

The accomplishment of the eatery business is subject to the seating limit. The management needs to foresee that seating capacity is adequate and appropriate in a restaurant since it is a factor that affects the profitability and marketability of the restaurant business (Stoner, 2008).

To start up a restaurant business it is necessary to determine the seating capacity as well as the structure of the establishment. The restaurant management is crucial in day to day operations in learning everything from the kitchen, dining, staff and consumers' needs. (Selected Furniture LCC, 2013).

The menu serves as an essential marketing and management tool in the restaurants in three urbanized cities. All the rank and file employees must be knowledgeable on the menu or cuisine that the restaurant offers to the customer. The significance of the menu content and design is based on the cuisines, and its list will determine much of the restaurant's success. Hence, the process of menu planning and design must be complimented on the manner of cooking, portioning, and presentations. Of the twelve (12) restaurants, there were more or accounting to five (5) that offers European type of cuisine while there was only one (1) restaurant whose kitchen was Asian inspired.

A properly intentional menu can lead to enthusiasm of the customers to dine in the restaurant. This menu must be the most astounding to benefit consumers while accomplishing the sales returns of the owners.

Table 3. *The extent of implementation of the green initiatives of the restaurants in terms of energy efficiency*

Activities and Practices	**Cebu City**		**Mandaue City**		**Lapu-Lapu City**		**Average Mean**	**Descriptive Index**
	μ	DI		DI	μ	DI		
a. Lightning, refrigeration ventilation, and air-conditioning	2.74	FI	2.74	FI	2.71	FI	2.73	Fully Implemented
b. Cooking equipment, kitchen exhaust, and temperature control system	2.83	FI	2.80	FI	2.75	FI	2.79	Fully Implemented
c. Measure taken to create awareness on information for efficient use of energy and its conservation	2.79	FI	2.78	FI	2.75	FI	2.77	Fully Implemented
Aggregate Mean	2.79	FI	2.77	FI	2.74	FI	2.77	Fully Implemented

Legend: FI-Fully Implemented; LI-Less Implemented; NI - Not Implemented

Specifically, the highest weighted mean of 2.79 signifies that the respondents assessed that the restaurants fully implemented the green initiatives by saving electricity in using cooking equipment that requires less energy, using exhaust and temperature control systems. This result means that the employees perceived that they had done their part in helping the restaurant in saving energy while they perform their tasks or job. Also, they implied that they followed the rules and procedures on how to preserve the water in the long term.

Moreover, the lowest weighted mean of 2.73 also indicates that the restaurant management had fully implemented measures in turning off the lights, refrigeration, ventilation, and air conditioning unit when they are using these appliances or equipment. This data means that the employees responded that they adhere to the policy of the restaurant in turning off the kitchen and restaurant machines and equipment during off customer hours to save electricity. The aggregate mean of 2.77 indicates that the employees perceived that the restaurants fully implemented green initiatives in terms of energy efficiency. This result denotes that the employees had followed the policies in the restaurant where they are employed to reduce their consumption of electricity like turning off the lights, appliances, tools, and equipment when they are not in use as well as turning off the air conditioner units when there are no customers. In this manner, the restaurant may be able to reduce also their electric bill. Thus, they can also decrease their operating expenses. The result relates to the goal of energy efficiency that is to reduce energy, which is one of the important aspects of green initiatives. To have healthy human health the energy efficiency greatly helps as well as reducing acid rain (Energy Star, 2012).

Table 4. The extent of implementation of the green initiatives of the restaurants in terms of water conservation

Activities and Practices	Cebu City		Mandaue City		Lapu-Lapu City		Average Mean	Descriptive Index
	μ	DI	μ	DI	μ	DI		
a. Plumbing design and awareness programs	2.74	FI	2.86	FI	2.81	FI	2.80	FI
b. Water conservation in the restaurant's kitchen	2.63	FI	2.71	FI	2.73	FI	2.69	FI
Aggregate Mean	2.68	FI	2.78	FI	2.77	FI	2.74	FI

In particular, the highest weighted mean of 2.80 indicates that the restaurant establishments fully implemented the adoption of plumbing design that conserves water and conducted awareness programs on how to save water properly.

This result denotes that the restaurant management invests in a plumbing model that would save water. This might be expensive compared to the traditional design, but it will help to reduce the water bill while doing water conservation in the long run. On the part of the employees, they promoted among themselves and even to the customers the water conservation measure by simply putting signage at the lavatories and toilets reminding on saving Mother Earth by conserving the water.

Besides, the lowest weighted mean of 2.69 signifies that the management of the restaurant establishments was able to fully implement the policies and measures on water conservation in the kitchen area especially that this part of the restaurant is very water-intensive. This data means that the kitchen personnel would wash dishes, kitchen utensils, and equipment using basin and by batch.

The aggregate mean of 2.74 shows that the restaurant's management had fully implement green practices in the area of water conservation.

This result means that respondents assessed that they had done their share in doing actions to ensure that the water is being used properly and mitigates its wastage.

Although the data shows that water conservation was fully implemented, these establishments do not reuse the wastewater they used for washing, do not treat their wastewater for watering of the plants in the garden or meet the needs of the plants.

Moreover, they also do not harvest rainwater for gardening, dishwashing or xeriscaping, and they do not have automatic shut-off solenoids, and controllers to turn the water off when not in use.

These results do not adhere to the goal of water conservation since it involves efforts, including the sustainability of water supply to ensure availability for future generations (Odum, 2008).

Table 5. The extent of implementation of the green initiatives of the restaurants in terms of waste management

Activities and Practices	Cebu City		Mandaue City		Lapu-Lapu City		Average Mean	Descriptive Index
	μ	DI	μ	DI	M	DI		
a. Adherence to Provision RA 9003, Solid Waste Management (SWM)	2.94	FI	2.95	FI	2.92	FI	2.94	FI
b. Reduce (Reduction in the generation of waste)	2.81	FI	2.82	FI	2.88	FI	2.84	FI
c. Re-use (Use of solid waste alternative purposes)	2.05	LI	2.06	LI	2.15	FI	2.09	LI
d. Recycle (Collection and selling/processing of solid waste materials which could be transformed into other kinds of products)	2.73	FI	2.51	FI	2.68	FI	2.64	FI
Aggregate Mean	2.63	FI	2.58	FI	2.66	FI	2.62	FI

In specific, the highest weighted mean of 2.94 denotes that the restaurants' management fully implemented proper segregation of garbage in compliance with the stipulation of the Ecological Solid Waste Management Act of 2000 or Republic Act 2003. This result means that the trash of the establishment will be categorized as biodegradable, non-biodegradable, and residual wastes since the garbage collector of the government will not collect garbage that is not adequately segregated.

Furthermore, segregation is one of the most serious stages concerning waste and recycling management in the home, commercial, or industrial establishments. A powerful administration of waste and reusing system began with the isolation of waste streams with the utilization of satisfactory reusing compartments. An exemplary outline in regards to perfect compartments for the detachment of waste streams is color- coded with the label of the different receptacles. Every color is employed to collect a type of waste, red for metal, blue for paper, green for glass, and yellow for food or residual wastes.

However, the restaurant less implemented the reuse or use of solid wastes for alternative purposes as indicated by the weighted mean of 2.09. This result denotes that the management of the restaurant, as well as the personnel, do not consider the practice of turning solid wastes into other uses to help lessen the garbage that was thrown in the dumpsites which as greater havoc towards the environment.

In the first place, converting the trash into different forms like arts entails more budget, time, and additional personnel, which in turn increases the operational expenses of the business entity. So that's precisely the reason why most of the restaurants in the three cities do not like to do this type of green initiatives.

The aggregate mean of 2.62 denotes that the restaurants had fully implemented green initiatives in the context of proper waste management. This result indicates that establishment adheres to the provisions of the various laws relating to waste management like the Solid Waste Management Act, and other relevant practices such as reduction of waste, reusing of solid wastes, and recycling.

Also, they do not like to recycle plastic bottles, paper materials, tin cans, and plastic bags. These were likewise similar in all selected restaurants operating in the three cities. Used cooking oil is also rarely used because it may affect the food quality of the dishes they prepared, and it might have off-odor or off-taste on the food. The solid wastes in the restaurant's kitchen such as vegetables and fruit peelings, food scraps are just discarded together with other wastes. Green initiatives of the restaurants in the three highly urbanized cities in Metro Cebu in terms of waste management as to the gathering, transporting, processing or disposal, management and monitoring of waste materials are practiced but to a limited extent only despite that the employees gave their support to those waste management measures being implemented in the establishment since they need to follow orders from the management. Segregation is necessary to all types of solid waste especially to the companies that produce unique wastes that need to dump in individual containers, in fact, some of it cannot throw in the landfills.

The company requires knowledge and expertise in waste management. These companies can help businesses like proper segregation, storage, collection, and when possible, recycling of other wastes being produced. To sort or segregate it keeps waste treated differently (Benson, 2012).

Table 6. *Summarized data on o the extent of implementation of the green initiatives of the restaurants*

Green Practices	**Cebu City**		**Mandaue City**		**Lapu-Lapu City**		**Aggregate Mean**	**Descriptive Index**
	μ	DI	μ	DI	μ	DI		
a. Energy Efficiency	2.78	FI	2.77	FI	2.73	FI	2.76	FI
b. Water Conservation	2.70	FI	2.81	FI	2.80	FI	2.77	FI
b. Waste Management	2.70	FI	2.63	FI	2.71	FI	2.68	FI
Grand Mean	2.73	FI	2.74	FI	2.75	FI	2.74	FI

Among the three indicators of green initiatives in the restaurant environment, water conservation was fully implemented to the greatest extent based on the aggregate mean of 2.77. This result means that the restaurant management had given high regards on how to save water in its operations in the kitchen, restrooms, and other cleaning purposes. The reason for this was to reduce their water bill and to support the global call for protecting the environment by mitigating the exhaustive use of man of the groundwater which causes flooding and intrusion of saltwater in the ground. Although waste management obtained the lowest aggregate mean (μ=2.68), the data still reveals that the restaurant management still considers that this aspect of green initiatives was fully implemented. This result denotes that the restaurants' management had lesser adherence in reducing the wastes that they throw since they thought that once they had discarded their waste, it will no longer be their responsibility.

Further, the grand mean of 2.74 indicates that the restaurants in the three big cities in the Province of Cebu, Philippines fully implemented green initiatives. These results suggest that the restaurants' stakeholders are mindful of the possible impact of their operations on the environment. So, they had given importance on saving and conserving energy and water, as well as on the proper disposal of their wastes.

The restaurant industry ought to focus the environmentally friendly actions to innovate their services serving customers while not changing the customer satisfaction by providing information awareness on green practices.

Restaurant owners or managers should include the Green Practices for their management by joining green associations such as the Green Restaurant Association (GRA).

Table 7. *Results on the test of significant difference on the extent of implementation of green initiatives according to geographical location*

Variables	Df	F-computed	F-critical (L = 5%)	Interpretation	Decision on Ho
Three highly urbanized cities (Cebu City, Mandaue City, and Lapu-Lapu City)	2. 9	2.89	3.89	Not Significant	Accept

The F value is 2.89, which is lesser than the critical value of 3.86. These findings denote that there is no significant difference in the responses of the participants on their assessment on the extent of implementation of the green initiatives of the restaurants in the context of energy efficiency, water conservation, and waste management. Moreover, the location of the restaurants has no connection to the employees' perception of how well the internal stakeholders of the restaurant business adheres to the environmentally directed policies, which are a significant factor towards sustainability.

Table 8. *Significant difference on the extent of implementation of green initiatives among the participants*

Variables	Df	F-computed	F-critical (L = 5%)	Interpretation	Decision on Ho
As to Job Designation (Supervisor, Rank-and-File, and General Services)	3, 121	3.86	5.05	Not Significant	Accept

Further, the F value is 3.86 and a critical value of 5.05. The outcomes demonstrate that there is no huge contrast in the appropriate responses of the respondents as far as the degree of execution of the green activities among the members as to vitality productivity, water preservation, and waste administration. This data means that whether the employee is a supervisor or just rank-and-file, it does not have any bearing on their actions to follow the proper means and ways of green practices. Moreover, the implementation of green initiatives is everybody's concern.

CONCLUSIONS

Therefore, it is concluded that green initiatives in the context of energy efficiency, water conservation, and waste management were emphasized in the operations of the restaurant business establishments. Although the stakeholders of the restaurants may consider themselves

to have fully adhered to the provisions of environmentally directed activities, there are certain aspects in its infrastructures and practices that had not fully complied with the real actions towards environmental sustainability. Hence, it is crystal clear that the operation of the restaurants did not fully guarantee the sustainability of the environment for the next generations to come since the stakeholders would only adhere to the green practices at their convenience and the least cost. This situation means that the internal stakeholders had not entirely accepted the real value of environmental protection and conservation.

RECOMMENDATIONS

To help the establishments address the environmental effects of their operations, eco-friendly management agencies and restaurant associations should cooperate and collaborate to develop a sustainability plan that highlights the best green practices, which can be a comprehensive set of cost-effective, science-based recommendations for the foodservice industry. The actions involved energy efficiency includes energy-efficient lighting as well as the electricity and fuel reduction program in the restaurant industry; adopt the EELs manuals and guidelines to help disseminate information to practitioners and stakeholders of the restaurant industry. For water conservation, it needs the incorporation of water management strategies involving. On waste management, the restaurant management and stakeholders should continuous to find new and better ways in cost reduction and minimize overhead expenses while meeting customers' demands.

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