IDENTIFYING CORRELATION BETWEEN THE FACTORS OF GREEN PRACTICE IN RESTAURANT OPERATION: A CASE OF BANGLADESH

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ABSTRACT

Tourism today has a clear negative impact on the environment. Along with other stakeholders, visitors are increasingly concerned about environmental deterioration, and as awareness of this issue grows, green practices in tourism emerge. The main goal of this study is to investigate how various aspects of green practices in restaurant operations relate to one another. Personal interviews and a random sampling technique were used to gather data. Thirty-one cases were selected for data collection, and an analytical model was applied to analyze the collected data. Correlation analysis is used to determine the nature of the relationships between the variables, while factor analysis helps identify the principal variables. The top three factors identified in the study are "green steps," "recycling initiatives," and "green awareness." The study finds that while few restaurants can accurately define green practices, most engage in them, whether consciously or unconsciously, even though these practices are not fully developed. Significant relationships are found between green practices and the offered menu. A strong relationship is also uncovered between green practices and energy-saving programs. Among the green practices variables, several are strongly related to each other. Restaurants can focus on the variables that lead to the most effective green practices.

Key Words: Green practice, Eco-friendly practice, Restaurant, Eco-friendly restaurant.

1. INTRODUCTION

Restaurants play a crucial role in the hospitality industry and significantly support tourism in Bangladesh. However, they also have a direct impact on environmental degradation. It is therefore imperative for the industry to implement proactive measures to mitigate environmental pollution. By adopting green practices, restaurants can take steps to reduce their ecological footprint. This study investigates the various aspects of green practices within restaurant operations in Bangladesh, aiming to identify key environmental initiatives and evaluate their effectiveness. The goal is to assess how these sustainable practices influence operational efficiency and customer satisfaction.

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The Green Practices program in restaurant operations consists of different sub-programs or tools to the way of being environmentally friendly. It refers to initiatives that incentivize hoteliers to conserve electricity, water, and solid waste, thereby mitigating operational expenses and safeguarding the environment. In the last several years, the environmental problems that our world faces have come to light more and more. The challenges of climate change, global warming, deforestation, excessive energy usage, and rising pollution are extremely worrying. According to Krause (1993), Han et al. (2011), Langgat (2019), Asadi et al. (2020), and others, the activities of businesses indirectly contribute to the effects of global warming, high energy consumption, and the use of huge quantities of food supplies. In discussion of the contribution to the degradation of the environment by the tourism business GlemKreag (2001) explores the generation of waste and pollution (air, water, solid waste, noise, and visual) by the visitors.

Now consumers have become more aware of environmental pollution (D'souza & Taghian, 2005), which leads to changes in their consumption behaviors (Laroche, Bergeron, & Barbaro-Forleo, 2001). For example, consumers want to buy eco-friendly products to protect our environment, and they are even willing to pay more for such products (Han, Kim, & Lee, 2018, Liu, Yang, & Xu, 2017). On the demand side, environmentally responsible consumption is increasing among restaurant consumers, with patronage increasing at restaurants that implement green practices (Bacig & Young, 2019; S. Y. Jang et al., 2015; Moon, 2021). According to Han, Hsu, and Sheu (2010), there is a growing trend among customers to purchase environmentally friendly products and services as they become more aware of the severity of environmental issues. It is impossible to overlook how the restaurant business, in particular, contributes to environmental deterioration given its substantial influence in the tourism sector. Kasim (2009) expresses that while the service industry, particularly the hospitality sector, continues to grow in importance, it finds it cannot escape from its responsibility for contributing to environmental degradation and climate change. The restaurant business is not at all environment friendly. Restaurants generate enormous quantities of food waste, plastic waste, and emissions while simultaneously consuming huge quantities of water and energy (Kasim & Ismail, 2012). In their research Kim, Hall, & Kim (2020) claim that the restaurant industry is a huge generator of food waste and other resources, resulting in substantial greenhouse gas (GHG) pollution, material wastage, and massive investment costs. One industry that consumes a lot of water, power, cleaning supplies, and disposables like take-out containers is the restaurant industry. Due to its extensive and careless use of conventional resources, the restaurant business releases a significant quantity of carbon dioxide into the atmosphere, all the while preserving the environment for customers (Szuchnicki, A.

L., 2009). Restaurants are responsible for a variety of "non-green" practices like the generation of food waste (Chiang & Sheu, 2020; Filimonau et al., 2020; Hatjiathanassiadou et al., 2019; Heikkilä et al., 2016), usage of non-sustainable materials in packaging and service delivery (Fieschi & Pretato, 2018; Tenenbaum, 2019), bad waste disposal strategies (Filimonau et al., 2020), and wasteful practices leading to the inefficient use of energy and water (Hatjiathanassiadou et al., 2019). Therefore, it is imperative to investigate and comprehend the significance of green practices for restaurant owners and managers. Researchers, according to Batat (2020), emphasize that the hospitality sector—which includes hotels and restaurants—should support sustainability by promoting eco-friendly and responsible business practices. This is because the hospitality sector uses harmful detergents and chemicals, generates pollution, wastes energy, and uses plastics among other things that contribute significantly to climate change.

Significant income, job possibilities, and cross-cultural interchange are produced by the tourism industry, which is an important economic sector. But it also puts a lot of stress on ecosystems. According to the United Nations World Tourism Organization (UNWTO), tourism contributes approximately 8% of global greenhouse gas emissions, mostly through transportation and accommodations. Restaurants are an essential component of the tourist experience in the tourism sector. Therefore, it is imperative that managers and owners of restaurants understand the effects of their operations and implement green practices. Trafialeket, Al (2019) defines green operations in restaurants as the means of reducing the negative impact on the environment which starts from growing or manufacturing the food until it is consumed. The word "green practices" describes a broad spectrum of environmentally responsible steps that companies take to lessen their impact on the environment. Waste management, energy efficiency, water conservation, sustainable sourcing, and employee training are just a few of the components of restaurant operations that are covered by these practices.

By implementing green practices, restaurants can reduce their environmental footprint while simultaneously reaping multiple benefits such as greater customer loyalty and increased competitiveness. Industry experts have acknowledged the significance of green practices as a factor influencing a company's image, and they think that implementing green practices can enhance that image, which will ultimately lead to increased customer loyalty (Ryu, Han, & Kim, 2008). Kim and Hall's (2020) investigation of Korean restaurants focused on the connection between environmentally friendly operations and customer loyalty. The study came to the conclusion that restaurants should think about implementing waste management and food sustainability strategies in addition to cost reduction because these initiatives could boost customer loyalty and enhance the eating

experience. According to TJeong, E., & Jang, S. S. (2013), adopting green practices gives restaurateurs a competitive edge by enhancing their reputation and image in addition to helping them run a socially conscious business and saving long-term operational costs. A hospitality company can reap significant benefits from using green practices as a "value-added business strategy" (Kim et al., 2017). The majority of restaurants implement green practices because they can improve their business performance in a number of ways, including lowering operating costs (Schubert et al., 2010; Susskind, 2014), enhancing customer satisfaction and corporate image (Hu et al., 2010; Namkung and Jang, 2013; Peiró-Signes et al., 2014), encouraging consumer purchase and word-of-mouth intentions (Barber and Deale, 2014; Manaktola and Jauhari, 2007), and promoting long-term financial performance (Singal, 2014).

The empirical study aims to search for the correlation between and among the variables of green practices of restaurant businesses in the context of tourism. The research question for the study is “How the different variables of green initiatives are correlated?” The analysis of the literature makes it clear that no research has been done on the issue that gives the current study its uniqueness. The growing volume of research on sustainable restaurant business practices will be aided by this study. This study combines quantitative and qualitative research approaches using a combination of methods. The study's conclusions will impact theory and practice in different ways. Theoretically, it will fill knowledge gaps and offer fresh perspectives to the body of literature already written about sustainable business strategies in restaurants. This study will provide insight into the decision-making processes underlying the adoption of green practices by examining the drivers and difficulties that owners and managers encounter. The results will, from a practical standpoint, offer useful suggestions for enhancing sustainability in the tourism sector to legislators, industry associations, and management of restaurants. Additionally, it will help customers understand how important it is to patronize environmentally friendly restaurants, which will further the cause of a sustainable culture.

OBJECTIVES OF THE STUDY

Examining the relationships between and within the factors of green practice in the operation of restaurants is the basic objective. The specified objectives are as follows:

- Find the solution to the query, "How are the variables of green practice correlated?"
- Determine how knowledgeable the management is about green practices.

MATERIALS AND METHODS

A broad spectrum of restaurants operating in Bangladesh makes up the population for this study. 31 cases were selected for analysis based on the overall population size. Restaurants were chosen from the list that was provided by a tourist industry specialist. Cox's Bazar serves as a source for restaurants. Two-stage sampling method is used for the investigation. First, the technique of stratified sampling is employed to select the restaurant. The two strata are "General Restaurant" and "Restaurant with Hotel". Second, customers from each restaurant are chosen as respondents using a straightforward random sample procedure. There are no female respondents and that there are 100 percent male respondents. Due to the nature of the industry, it has happened because no women work in it. Data editing is carried out using in-house editing. Numerical coding is incorporated for the study. After coding is complete, the researcher begins to enter the coded data from the survey into a file.

A research plan has been developed for the study, in which choices have been made on the data sources, methods, and tools that have been used to gather the data. Primary data for the research project is gathered through in-person interviews. Surveys are conducted using pre-set, structured questionnaire. There are both scale and dichotomous items in the survey. A handful of the questionnaire's questions are open-ended, especially the ones that ask about identity. The researcher verifies the accuracy of the data by looking at response consistency, probing, and statistical inspection. An analytical model was used to analyze the data.

DATA ANALYSIS AND FINDINGS

Analysis of profile of the respondents

Below is a list and discussion of various socioeconomic and demographic statistics, including education level, position in the organization, experiences, types of restaurants, size of restaurants, etc.

Table1: The socio economic and demographic characteristics of respondents

Variable	Sub-variable	Frequency	Percent (%)
Level of Education	Secondary School Certificate (SSC)	3	10
	Higher Secondary Certificate (HSC)	9	29
	Graduate	13	42
	Post Graduate	6	19
	Total	**31**	**100**
Designation	Director/Manager	20	65
	Others	11	35
	Total	**31**	**100**
Experiences	1-5	22	71
	6-10	9	29
	Total	**31**	**100**
Type of Restaurant	General	2	6
	Restaurant with hotel	29	94
	Total	**31**	**100**
Restaurant's size (based on number of employees)	1-20	24	77
	21–40	7	23
	Total	**31**	**100**
Restaurant's size (based on monthly average sale)	Tk.1–20 lakh	21	68
	Tk. 21–40 lakh	6	19
	Tk. 40+ lakh	4	13
	Total	**31**	**100**

Source: Field survey by the researcher, 2023

Table 1 shows that 42% of respondents have a graduate degree, and 29% have an HSC. There were no respondents from primary education, and just 10% of people passed the SSC. When asked about their position inside the organization, 65% of respondents identified as directors or managers, while the remaining 35% fell into another category.71% of respondents in the entire sample have 1 to 5 years' worth of experience, whereas 29% have 6 to 10 years' worth. 94% of respondents in the restaurant category are from the category of "restaurant with the hotel," while the remaining respondents are from the category of "general" restaurant. According to the size of the restaurant as measured by the number of employees, 77% of respondents came from establishments with 1 to 20 employees, while 23% of respondents came from restaurants with 21 to 40 employees. According to monthly average sales, 68% of responders to the question about the size of the restaurant are from establishments with sales between 1 and 20 lakh taka and 13% had sales 40+ lakh taka.

Identifying Green Practice

The researcher requested the respondents to define the term in the restaurant in order to gauge their level of understanding regarding green practices. On this matter, the question was open. The researcher investigates several types of answers and divides them into three categories: *correct answer*, *partially correct answer*, and *wrong answer*. According to the operational definition of "green practice" used in this study, the replies have been grouped. The following table displays the findings:

Table 2: Distribution of responses regarding the definition of green practice in restaurant

Category of Answer	Number of respondent	Percentage
Correct Answer	3	9.68
Partially Correct	23	74.19
Wrong Answer	5	16.13
Total	**31**	**100.00**

Source: Field survey by the researcher, 2023

About 10% of respondents properly identify "green practices in restaurants," according to table 2.74% of respondents can only define the problem somewhat, while 16% of respondents gave an incorrect definition.

Whether Green Practice have or not

The restaurant managements are asked by the researcher if their businesses use green practices. The question was framed as a dichotomous question. The accompanying diagram (figure 1) presents the results.

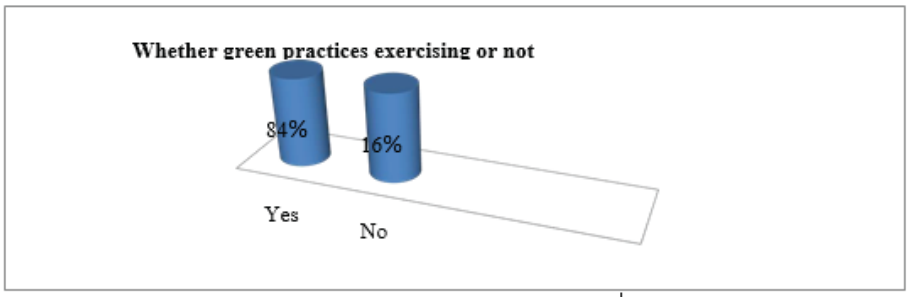

Figure 1: Illustrating whether there are green practices in restaurants

Approximately 84% of restaurants have green practices, and only 16% don't, according to the figure 1.

Several restaurants don't use any green practices. Why? Following are some of the findings from the study that are discussed on not implementing even a single practice for environmental issues:

1. One of the primary reasons why green issues are not implemented in restaurants is a lack of understanding about them.
2. According to certain management, this is not the time to engage in green exercise.
3. A significant investment is needed to validate green practices in the restaurant industry.
4. The owners and managements of restaurants need to come to an arrangement on separate management when it comes to green practices.

Reliability of Instrument

The typical range of Cranach's alph is liability coefficient is 0 to1. The scale's items (variables) have a higher degree of internal consistency the closer the coefficient is to 1.0.

Table 4: Reliability Statistics

Cranach's Alpha	N of Items
.701	8

The table 4 shows that Cranach's Alpha (for 8 items) for reliability statistics is .701, suggesting that the items have relatively internal consistency showing the instrument is reliable.

Correlation Matrix Analysis

The correlation between Green Practice and other factors is displayed in the table below (table 5). Programs for recycling, composting, energy and water conservation, eco-friendly cleaning supplies, the menu that is offered, and procurement guidelines are further issues.

Table 5: Spearman's rho Correlation Matrix

	Green Practice	Recycling Program	Composting Program	Energy Savings Program	Water Conservation Program	Eco-friendly Cleaning Supplies	Offered Menu	Procurement Guidelines
Green Practice	1							
Recycling Program	.027 (.885)	1						
Composting Program	.062 (.742)	.026 (.890)	1					
Energy Savings Program	.418* (.019)	.233 (.208)	.247 (.180)	1				
Water Conservation Program	.321 (.078)	.076 (.685)	.371* (.040)	.476** (.007)	1			
Eco-friendly Cleaning Supplies	.213 (.250)	-.049 (.795)	-.107 (.566)	.393* (.029)	.416* (.020)	1		
Offered Menu	.738** (.000)	.116 (.534)	.216 (.244)	.502* *(.00)	.346 (.05)	.393* (.029)	1	
Procurement Guidelines	.288 (.116)	.377*(.036)	.349 (.054)	.470* *(.00)	.438* (.014)	.331 (.069)	.541** (.002)	1

*.Correlation is significant at the 0.05 level (2-tailed).

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

(…) parenthesis indicates the p-value.

Source: *Field survey by the researcher, 2023*

Table 5 indicates a significant correlation (99%) between Green Practice and the Offered Menu, with an r-value of 0.738, which is the strongest among all Green Practice components. This relationship is highly significant, as evidenced by the p-value. Additionally, Green Practice and the Energy Savings Program show a strong positive correlation at the 95% level, with an r-value of 0.418. Although positive correlations exist between Green Practice and other factors, these associations are not as pronounced.

These results indicate a significant correlation between the dependent and independent variables, highlighting a notable relationship between the Energy Savings Program and Green Practice with respect to the Offered Menu. However, no significant relationships are observed between Green Practice and the other predictors.

Table 6 displays the correlation coefficients for the Recycling Program in relation to various variables, such as Glass Recycling, Plastic Recycling, Metal Recycling, Cardboard Recycling, Aluminum Recycling, and Paper Recycling.

Table 6: Spearman's Correlation Matrix

	Recycling program	Glass can be recycled	Plastics houldbe recycled	Metalsh ouldbe Recycled	Cardboard can be recycled	Aluminum should be recycled	Paper can be recycled
Recycling program	1						
Glass can be Recycled	-.060 (.747)	1					
Plastic	-.133	-.379*	1				
should be recycled	(.477)	(.036)					
Metal should be recycled	-.116 (.534)	-.069 (.712)	.226 (.222)	1			
Card board can be recycled	-.130 (.485)	-.333 (.067)	.195 (.294)	-.240 (.194)	1		
Aluminum should be recycled	.084 (.654)	.174 (.348)	-. 417* (.019)	-.220 (.235)	-.265 (.149)	1	
Paper can be recycled	-.156 (.401)	-.267 (.147)	.162 (.383)	.192 (.301)	.008 (.967)	-.098 (.599)	1
(…) parenthesis indicates the p-value.							
* Correlation is significant at the 0.05 level (2-tailed).							

Source: Field survey by the researcher, 2023

Table 6 demonstrates that the Recycling Program has a negative and statistically insignificant relationship with most factors, except for Aluminum Recycling. Specifically, the association between the Recycling Program and Aluminum Recycling Program is very weakly positive, with an R-value of 0.084 and a p-value of 0.654, indicating that this relationship is also statistically insignificant.

Table 7 provides correlation coefficients for energy saving plans and various factors including lighting use, use of solar energy products, and water efficiency improvements, and explores renewable energy options.

Table 7: Spearman's Correlation Matrix

	Energy savings program	Use of incandescent light bulbs with longer lasting	Use of energy star appliances	Installing a high-efficiency water heater	Looking into on-site renewable energy options
Energy savings Program	1				
Use of incandescent light bulbs with longer lasting	.076 (.685)	1			
Use of energy star appliances	-.077 (.679)	.196 (.290)	1		
Installing a high-efficiency water heater	.104 (.577)	.467**(.008)	.153 (.410)	1	
Looking into on-site renewable energy options	.057 (.759)	.154 (.409)	.238 (.198)	.275 (.135)	1
(…) parenthesis indicates the p-value.					
**Correlation is significant at the 0.01 level (2-tailed).					

Source: Field survey by the researcher, 2023

Table 7 shows that energy saving services have the weakest correlation with several factors, including lighting usage, installation of high-efficiency generators, and on-site renewable energy options (unless Energy Star products are used). These relationships are not significant. Additionally, the relationship between energy saving and solar energy consumption is negative, with an r value of -0.077 still insignificant.

Table 8 provides the correlation coefficients between the Water Conservation Program (dependent variable) and several independent variables: the Use of Low-Flow Toilets, the Use of Waterless Urinals, Serving Water to Customers Only Upon Request, and Installing Aerators on Faucets.

Table 8: Spearman's Correlation Matrix

	Water conservation program	Use of low-flow toilet	Use of water-less urinals	Serving water to the customer only upon request	Installing aerators on faucets
Water Conservation program	1				
Use of low-flow toilet	-.004 (.981)	1			
Use of water-less urinals	.284 (.121)	-.046 (.806)	1		
Serving water to the customer only upon request	-.142 (.446)	.285 (.120)	.279 (.128)	1	
Installing aerators on faucets	.068 (.717)	.024 (.897)	.088 (.637)	.170 (.360)	1

Source: Field survey by the researcher, 2023

Table 8 illustrates a negative relationship between the Use of Low-Flow Toilets and Serving Water to Customers Only Upon Request with the Water Conservation Program (dependent variable), with correlation coefficients of -0.004 and -0.142, respectively. The corresponding p-values indicate that these relationships are statistically insignificant. Furthermore, the table shows a very weak positive correlation between the Water Conservation Program and the Use of Waterless Urinals as well as Installing Aerators on Faucets, both of which are also statistically insignificant.

Table 9 details the correlation coefficients for Eco-Friendly Cleaning Supplies with its related independent variables, including the Use of Environmentally Friendly Cleaners for Dishes and the Use of Environmentally Friendly Cleaners for Tables and Floors.

Table 9: Spearman's Correlation Matrix

	Eco-friendly Cleaning Supplies	Use of environmental friendly cleaners for dishes	Use of environmental friendly cleaners for tables and floors
Eco-friendly Cleaning Supplies	1		
Use of environmental friendly cleaners for dishes	.030 (.872)	1	
Use of environmental friendly cleaners for tables and floors	-.037 (.844)	.524**(.002)	1
(…) parenthesis indicates the p-value.			
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Field survey by the researcher, 2023

Table 9 reveals a very weak positive correlation between Eco-Friendly Cleaning Supplies and the Use of Environmentally Friendly Cleaners for Dishes, evidenced by an r-value of 0.030. The corresponding p-value of 0.872 indicates that this association is statistically insignificant. Additionally, the Spearman's correlation matrix shows a weak negative correlation between Eco-Friendly Cleaning Supplies and the Use of Environmentally Friendly Cleaners for Tables and Floors, which is also statistically insignificant.

Table 10 provides the correlation coefficients between the Offered Menu (dependent variable) and various factors, including Offering Local Ingredients on the Menu, Offering Organic Food on the Menu, and Avoiding Genetically Modified Foods.

Table 10: Spearman's Correlation Matrix

	OfferedMenu	Offering local ingredients on the menu	Organic food on the menu	Avoiding genetically modified foods
Offered Menu	1			
Offering local ingredients on the menu	-.049 (.792)	1		
Organic food on the menu	-.136 (.467)	.523**(.003)	1	
Avoiding genetically modified foods	-.126 (.501)	-.065 (.728)	.256 (.165)	1
(…) parenthesis indicates the p-value.				
**. Correlation is significant at the 0.01 level (2-tailed).				

Source: Field survey by the researcher, 2023

Table 10 shows that menu items are negatively associated with ingredients such as sourcing local ingredients, sourcing organic food, and no food substitutes with correlations of -0.049, -0.136, and 0.126, respectively. These low coefficients indicate a weak relationship between menu items and these attributes. Furthermore, the p-values for these associations indicate that the relationships between the Offered Menu (dependent variable) and the independent variables are statistically insignificant. This implies that the factors considered do not have a meaningful or significant impact on the Offered Menu in the context of this study.

Factor Analysis

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, as shown in Table 11, was calculated to assess the suitability of the variables for factor analysis. The resulting KMO value is 0.293.

Table 11: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.293
Bartlett's Test of Sphericity	Approx.Chi-Square	290.205
	Df	210
	Sig.	.000

Source: Field survey by the researcher, 2023

Table 11 presents the results of the Chi-Square test for Bartlett's Sphericity, which yielded a value of 290.205 with a significance level of 0.000. This indicates that the variables under study are correlated, confirming that the data are suitable for factor analysis.

Table 12 illustrates the seven principal factors extracted from the factor analysis of the autopsy variables (N = 237), which collectively account for 73.288% of the total variance. To determine the inclusion of variables in their respective factors, a minimum loading criterion was applied, with only those variables exhibiting a factor loading of 0.5 or higher being retained in the analysis. This methodological approach ensures that only the most relevant variables contribute meaningfully to the identified principal factors, thereby enhancing the robustness of the analysis.

Table 12: Results of factor analysis

Principal Factors and Variables	Factor Loading	Eigen Value	% of Variance
Factor One: Green awareness		4.169	19.851
• Water should be served to the customer only upon request	.781		
• Installing a high-efficiency water heater is important	.773		
• Genetically modified foods should be avoided	.749		
• Use of incandescent light bulbs with longer lasting	.698		
Factor Two: Initiative to be green		3.208	15.276
• Plastic should be recycled	.769		
• Restaurants should use the low-flow toilet	.657		
• Looking into on-site renewable energy options is significant	.638		
Factor Three: Consciousness		2.240	10.665
• Environmental friendly cleaners for dishes should be used	.848		
• Environmental friendly cleaners should be used for tables and floors	.840		
• Aerators should be installed on faucets	.688		
• Metal should be recycled for the sake of Environment	.551		

Factor Four: Green steps		1.708	8.133
• Restaurants should offer local ingredients on the menu	.806		
• Organic food on the menu should be offered to reduce the amount of air pollution • Use of energy star appliances is significant	.781 .739		
Factor Five: Steps to recycling		1.524	7.256
• Cardboard can be recycled	.888		
Factor Six: Steps to food-waste and procurement		1.333	6.346
• Composting food-waste helps to reduce the amount of waste	.607		
• Procurement guidelines should be established for green practices	.537		
Factor Seven: Concentration to water		1.210	5.760
• Restaurants should use water-less urinals	.816		

Source: Field survey by the researcher, 2023

The first factor, "green consciousness", explained 19.851% of the variance and included four items: water is only provided on demand, it is important to adjust the machine to the working pressure, customers should avoid food substitutes and use long life incandescent lamps, good lighting in the long run, good lighting is a good way to reduce energy costs.

'Initiative to be green ' is the second mostly explained factor of variances for 15.276% and consists of three variables: recycling could give benefits to plastic; using low-flow toilets in restaurants are good practices, and thinking should be done on finding ways of renewable energy options at the facility level!

The third principal component 'consciousness' has 10.665% contribution to the total variance including items: use dishes, table and floor cleaners close to nature; set up faucet aerators immediately; recycle metal for environment protection.

The fourth major factor, "green steps," accounted for 8.133% of all changes and included three variables: local foodsfound in restaurants, organic foods to reduce pollution, and the importance of using energy star products.

Fifth factor (recycling step) explained 7.256% of the total variance and included only one product: cardboard is recyclable.

The sixth principle, "food waste and purchasing steps", explains 6.346% of all changes, including two different asp cts of food waste – helping to reduce waste and developing "green practice"

Finally, the seventh factor, "water mixture," accounts for 5.760% of the total change and includes one change: remember restaurants recommending using sterile urine.

Ranking of Principal Factors

Table 13 lists the seven factors according to their mean scores. These important factors are: Green Awareness, Green Initiatives, Awareness, Green Steps, Recycling Steps, Food Waste and Sourcing Steps, and Water Focus. The highest levels are green steps, recycling steps, and green knowledge with mean scores of 4.161, 3.806, and 3.75, respectively.

Table 13: Ranking of Principal Factors

Factors	Mean	Standard Deviation	Rank
Green Awareness	3.75	1.141	**3**
Initiative to be Green	3.634	1.599	4
Consciousness	3.572	1.312	5
Green steps	4.161	.749	**1**
Steps to recycling	3.806	1.077	**2**
Steps to food-waste and procurement	3.179	1.321	6
Concentration to water	2.096	1.374	**7**

Source: Field survey by the researcher, 2023

CONCLUSION

The restaurant industry can be a significant player in green tourism initiatives. It is clear from this study that, despite their inability to define green practices in tourism management of restaurants, these businesses do have certain green practices in place. Many restaurants do not utilize green practices for a variety of reasons. The primary barriers to being green in restaurants are mostly a lack of understanding of the issues, ignorance of how to go about putting green practices into effect, reluctance to make investments for this goal, and skepticism regarding the benefits of the activities. There are a number of factors that have been found to significantly relate to green practices. Additionally, there are many other aspects that are strongly related to one another. Management of restaurant operations should focus on the variables that lead to the best green practices. The restaurant industry should prioritize putting green issues into practice in order to gain a competitive edge and join other sectors in green initiatives. The government should take steps to help the restaurant industry understand the term "green practice" so they can see how to put it into practice and, at the same time, be persuaded of its advantages for both their particular business and the environment as a whole.

FURTHER RESEARCH

The globe is now going forward with eco friendly methods to lessen pollution because environmental degradation is such a critical issue. The researcher overlooks the pressing need for applications and real practices of environmentally friendly technologies in the restaurant business. When discussing applications,

performance is a factor that should be taken into consideration. The problem with this study is that research should have been done to gauge how well green practices work. Further research could look into the restaurant in Bangladesh's actual green practices. Academics may decide to investigate the value and effectiveness of green practices in this sector in the future.

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