

Sustainable Cuisine and its Impact on the Competitive Advantage of Egyptian Hotels

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Abstract

Sustainability is considered one of the most important issues in food trends over the globe. Sustainable cuisine has become a decisive tool that helps hotels' sectors, increases competitiveness, and achieves excellence. When looking through the lens of sustainability within cuisines, there are myriad interrelated issues, ranging from local purchasing, to waste management, to energy conservation, and to green building design. In order to sufficiently address any of these issues, food and beverage managers and cuisine chefs must take into account potential changes to operational processes, education and marketing needs, and processes for measuring costs and benefits. The aim of this research is to study the practices of sustainable cuisine in achieving competitive advantage in Egyptian hotels. The current research adopted a deductive approach using the questionnaire strategy as a data collection instrument. The population of the study was the general managers, assistant general managers and executive chefs who are

working in Hurghada hotels. Simple random sampling was chosen as the most proper sampling technique to achieve the study objectives. 300 questionnaires were distributed to respondents of the sampled hotels. The returned and valid questionnaires for analysis were 252, with a valid response rate estimated to be 0.84%. Research findings highlighted that the investigated hotels responded effectively to the waste and storing food services practices, to the statements of sustainable cuisine practices and to the achievement of competitive advantage.

Keywords: Sustainable, Cuisine, Competitive, Advantage.

1. Introduction

Hospitality is faced with many challenges, as this industry has displayed an almost constant growth since the 1950s. It is characterized by globalization which increases the number of competitors (Webster, 2004; Line and Runyan, 2012), climate disasters and armed conflicts

(Raymond, 2016). Also, it must meet consumer expectations that are constantly evolving with regard to quality of service and respond to the increasing environmental and social awareness of customer (Wilkins et al., 2007). Now, more and more hotels and restaurants are becoming more sustainable as they embark on a wide range of measures designed to reduce their impact on the environment (Chou et al., 2012). Around 80% of European hoteliers are involved in some kind of activity oriented toward the environment; areas most concerned are: Energy saving measures, water saving procedures, green products purchasing, and waste minimization practices (Zhang et al., 2012).

Kasimu (2012) argued that the International Hotel & Restaurant Association (IH &RA) has recently realized the need for more sustainable practices and has developed a set of ecological and business smart solutions. Practices which they promote include energy, water and other natural resource conservation, increasing recycling and encouraging the use of sustainable materials and alternative energy sources.

Previous studies pointed out that currently, customers are more knowledgeable, experienced, and aware of the effect of the food type on their health status and also the nutrition pattern on the environment. Thus, they want more healthful and nutritional food that are low in fat and calories. Consumers are also more likely to seek hospitality services that have adopted sustainable practices and interested of the sources and production process of the food they are eating (Sloan et al., 2009; Solomon et al., 2010; Trivette, 2012).

The aim of this research is to study the various practices for sustainable cuisine and its impact on achieving the competitive advantage in the

hotel industry. This aim may be achieved through studying the extent of awareness and commitment of management to sustainable cuisine practices, identifying the extent of implementing sustainable cuisine practices that include the following dimensions: growing food, planning menus, cooking and serving food, and wasting and storing food in hotel industry. Papers should clearly describe the background of the subject, the authors' work including the methods used and concluding discussion on the importance of the research. Technical terms should be explained. Acronyms should be written out at their first appearance.

Review of literature

Defining what is unsustainable or 'junk food' would be easier for most people. People are used to seeing 'organic' food to mean organic food production; similarly, 'Fair-trade' to mean food which is often understood and easily spotted by its label (Food Standards Agency-Fair-trade, 2015). However, developing a label for 'sustainable' food would be a daunting task because the defining principles associated with sustainable food include environmental issues, health-related issues, and social issues. The main impacts of many of the foodstuffs supplied to hospitality establishments may have been in processing, packing or distribution, not just at the stage of producing raw materials (Van Rheede and Blomme, 2012).

LaVecchia (2008) showed that food is a way to vitalize and deliver green practices to consumers in the food service sector. In general, organic-, locally-, and sustainably-grown food can be considered to constitute green food.

In that sense, locally grown food is defined as "A kind of food produced and consumed in a specific geographical area, buying local, as it

is termed, lowers the usage of fossil fuels for shipping and transportation, thereby decreasing air pollution (Weber and Matthews, 2008).

Waste is defined as "A material that is not used, wanted, or damaged; unusable remains or by products of something" (Waste definition, 2013).

Chen *et al.* (2009) added that in the hospitality industry, food and beverage involve pre consumer (preparation), post- consumer (leftovers), and packaging waste. Strategies around reducing, reusing, and recycling waste can be employed by restaurants; e.g., composting, and co-procurement.

Katsigris and Thomas (2006) stated that the priority is to reduce, then reuse and finally to recycle waste. There are a number of initiatives hospitality industry establishments can use to reduce resource's use which can be adapted depending on the nature of the restaurant or circumstances. One approach to source reduction is to buy less food to prevent waste from food needing to be thrown away. However, as an overall sustainable system, this needs to be offset against the energy costs of food transportation. Inventory can be computerized to plan ordering or control usage on a "first in-first out" approach. Hospitality industry can buy products differently to save on packaging.

There are a range of principles and practices which can contribute to create a sustainable menu. Sourcing ingredients from local farmers and suppliers is considered an important principle (Vieregge *et al.*, 2007; Weber and Matthews, 2008; Schubert *et al.*, 2010). It means less environmental impact resulting from travel (food miles) and buying locally helps support the local economy. The 'localvore' movement (also known as the 'hundred mile diet') where participants choose

to consume only locally produced food, is gaining momentum. However, it can be naïve to imagine that this practice is automatically more energy efficient than transported produce (Vermeir and Verbeke, 2006; DeWeerd, 2015). The 'food miles' or, more accurately, the 'food transportation' debate is concerned with the environmental and social costs associated with food transport, from where it is produced to where it is processed, to the wholesaler, the retailer or catering outlet, and the consumer.

Serving seasonal food is essential in constructing sustainable menu. According to Sloan *et al.* (2013), menus should be based on items that are in season and chefs should look for inspiration from the flow of seasons and the fresh products that become available. Seasonal food not only reduces the importation of food out of season; i.e., food miles, but also enhances local and regional diversity of plant and animal varieties as well as often leads to a rediscovery of local cooking traditions (Business and the Environment, 2008).

Schneider and Francis (2005) conducted a study to identify the advantages of consuming local food; the results showed that the environmental and health concerns were the most important advantages behind consuming local food. The huge reduction in transport costs, cheap food production in developing countries, as well as the increase of big food companies and supermarket chains are responsible for dramatically reducing farm-gate prices in industrialized nations (Brown and Miller, 2008; Rose *et al.*, 2008; DiPietro and Campbell, 2014). Local shops are increasingly disappearing and effects on rural economies and farming communities are detrimental (Seyfang, 2006).

According to Choi and Parsa (2006), many studies have shown the benefits and

competitive advantages that resulted from the implementation of eco-friendly practices. Benefits of implementing these practices include reducing operating costs, increasing customer satisfaction and loyalty, achieving harmony and compatibility with the environment and community, achieving market excellence, attracting new segments, and having a decisive factor to choose the best between two organizations offering the same products and services to equal foot (Manaktola and Jauhari, 2007).

Furthermore, Jackson and Seo (2010) asserted that companies which pay attention to the greening of human factors may be more productive, thus gaining a competitive advantage (Cherian and Jacob, 2012). In contrast, organizations, which do not have a comprehensive program for using green human resource management, will have potential limitations in the effectiveness of their environmental program (Renwick, Redman and Maguire, 2013).

According to Chan's study (2008), there are three obstacles to the implementation of eco-friendly practices in hotel industry. The first obstacle is lack of knowledge, understanding and availability of advice. The second obstacle is lack of resources. The third obstacle is high cost of the implementation.

Freeman (2011) Stated that the principal barriers to recycling identified by the hospitality industry are: cost, space, and concerns of convenience. Restaurants that do not have comingled recycling believe that it would be easy to add a glass-recycling program. As discussed above, cost can be a barrier to purchasing new energy- or water-efficient appliances, and the initial purchasing of devices for source reduction and increasing recycling. Actually, recycling costs are

negligible beyond the initial fee for the collection bin which includes delivery costs.

Small and medium enterprises (SME's) comprise the majority of businesses in the hospitality industry. 70% of all restaurants are classified as small businesses; 91% of all restaurants have fewer than 50 employees. SME's have not traditionally engaged in sustainable business practices because of owner and employee attitudes, varied opinions on environmental matters, cost barriers to implementing environmental management, and lack of financial incentives to purchase high efficiency appliances. Many SME owners state that financial incentives would motivate them to increase their environmental-management efforts. SME owners state that the major barriers to environmental management are time, cost, and government policies (National Restaurant Association, 2010).

Competitive advantage is dynamic. To maintain an advantage, a business must continually evaluate, adapt, and respond to outside pressures while ensuring that any changes are explained to employees. Communicating the sustainability goals of the business to employees is a key to unhindered application of sustainability practices (Freeman, 2011).

Research Methodology

The population of this research consisted of the general managers, assistant general managers, food and beverage manager and executive chefs of four and five stars hotels in Hurgada Hotels. According to Egyptian Hotels Association Guide (Egyptian Hotels Association, 2016), there are 73 Four and five stars hotels in Hurgada city. The researchers contacted the managements of the 21 hotels mentioned to explain the aim of the study and obtain permission for data collection. The final

questionnaire consisted of four sections. The first section is the demographic data which included gender, age, and level of education, department, and years of experience. The second section consisted of 7 statements about management awareness and commitment to sustainable cuisine practices. The third section consisted of 14 statements covered 4 dimensions of sustainable cuisine; these dimensions were; growing food, planning menus, cooking and serving food, waste and storing food. The fourth section consisted of 8 statements about achieving Competitive Advantage. 300 questionnaires were distributed to the selected sample, 48 were excluded because of missing data and 252 (84%) were analyzed. The field study was conducted from November (2019) to December (2019).

The Statistical Package for the Social Sciences (SPSS) version 22.0 for Windows was used to analyze the valid forms. Among its many modules for statistical data analysis are descriptive statistics such as frequencies, categorical data analysis, frequency counts, and percentage distributions. The analysis included the following statistical methods: Alpha Cronbach's test to know the reliability of the study tool and descriptive analysis: frequencies, percentages, means, standard deviations, as well as ranking on the basis of the most homogeneity values to describe the characteristics of the sample of the research and to identify the response to the study dimensions.

- Note that: the mean used in determining the response to the research dimensions is illustrated as follow:

Agreement Scale	No.	Range
Strongly Disagree	1	1- 1.80
Disagree	2	1.81-2.60
Neutral	3	2.61-3.40
Agree	4	3.41-4.20
Strongly Agree	5	4.21-5

Note that: the range of each level of agreement was calculated as follow:

$$5 - 1 / 5 = 0.80$$

In addition, the researcher used Spearman correlation coefficients to test the correlation among the study variables and the validity of hypotheses. It is used in the case of nonparametric tests and in the case of the ordinal data.

Research Model and Hypotheses

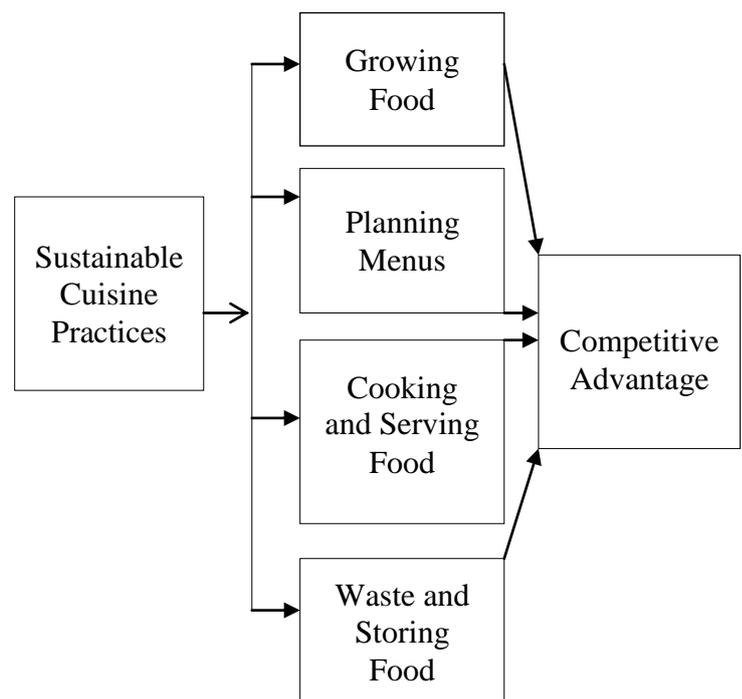


Figure 1 Research Model

Study model illustrates the impact of implementation of sustainable cuisine practices on achieving competitive advantage. The model includes five variables, one of them is independent (Competitive Advantage), and four are dependent (Growing food – planning menus – cooking and serving food – process flexibility – waste and storing food) as depicted in Figure (1).

Research Hypotheses

The research aims to test the following hypotheses:

H1: Applying sustainable cuisine practices has a significant effect on achieving competitive advantage.

H1a: Applying growing food has a significant effect on achieving competitive advantage.

H1b: Applying planning menus has a significant effect on achieving competitive advantage air.

H1c: Applying Cooking and serving food has a significant effect on achieving competitive advantage.

H1d: Applying waste and storing food has a significant effect on achieving competitive advantage.

Reliability Analysis

For all scales, Cronbach's Alpha coefficient was calculated to determine the internal consistency of the scale. The computation of Alpha Cronbach's is 0.73 based on the number of items on the questionnaires where the number of items is 29 statements. Reliability coefficient of 0.70 or higher is considered "Acceptable" in most social science research (Pallant, 2007). Thus, the Alpha Cronbach's reliability was computed and the coefficient calculated indicated that the instrument was reliable and still questionable for the employees.

Results and Discussions

The following part presents the response of the respondents on the research dimensions.

Table 1: Demographic Data of the Respondents

Demographic Data	Attribute	Frequency	Percentage (%)	Rank
Gender	Male	194	77.0	1
	Female	58	23.0	2
Age	Less than 30 years	109	43.3	1
	From 30 – 40 Years	47	18.7	3
	More than 40 years - Less than 50 years	96	38.1	2

Total		252	100.0	-
Level of Education	Vocational or technical school	74	29.4	3
	Bachelors degree	84	33.3	2
	Postgraduate(Diploma - Master – PhD)	94	37.3	1
Total		252	100.0	-
Department	Senior Management	135	53.6	1
	Food and Beverages	117	46.4	2
Years of Experience	Less than 2 years	26	10.3	3
	From 2 – 5 Years	92	36.5	2
	5 years and over	134	53.2	1
Total		252	100.00	-

The results in table (1) show a research sample demographic data. Amongst the respondents, 77.0% were male, and 23.0% were female which indicates that the majority of respondents were male. The age variable is represented as 43.3% in less than 30 years, 38.1% in more than 40 years- Less than 50 years, and 18.7% from 30-40 years. The data concerning respondents' level of education variables shows that 37.3% were in Postgraduate (Diploma -Master-PhD), 33.3% were bachelors degree, and 29.4% were in vocational or technical school. The majority of the sample was from those under 30 years old, and has graduate studies. The researchers attributed this to the awareness of hotel departments to provide opportunities for more educated and ambitious youth, especially after many hotel experiences flee abroad from the events of the January 25 revolution. From the sector which respondents worked in, the results showed that 53.6% were from senior management sector, and 46.4% were from food and beverages sector. Description of demographic data shows respondents' years of experiences as 53.2% in 5 years and over, 36.5% from 2–5 years and 10.3% in less than 2 years.

As shown in Table (2), the respondents of investigated hotels were not aware and committed to sustainable cuisine practices (mean= 2.96); this result did not agree with what was mentioned by (Chou et al., 2012),

who stated that more and more hotels and restaurants are aware and becoming more sustainable as they embark on a wide range of measures designed to reduce their impact on the environment. The majority of the respondents (63.6%) agreed that there is continuous monitoring and registration of all equipment and devices is performed periodically and preventive maintenance is carried out. Also, 63.5% of the respondents agreed that economic equipment is used to consume water and energy in food preparation and cooking sites. But, nearly half of the respondents (62.3%) indicated that the hotel did not provide guests with detailed information on food production methods, calorie values, and environmental impacts from production. Results also showed that more than half of the investigated hotels (60.7%) were not concerned with training staff on how to plan the menu seasonally and sustainably

This research found that, in Table (3), participants' views were neutral regarding the growing food practices (mean= 2.78). This principle comprised three practices. The high practice included "Visits to local farms are conducted periodically so that employees can identify the products they work with (mean= 3.38)" This result did not agree significantly with the practice mentioned by (Vieregge *et*

al., 2007; Weber and Matthews, 2008; Schubert et al., 2010) who stated that there are a range of principles and practices which can contribute to create a sustainable menu throughout sourcing ingredients from local farmers and suppliers is considered an important principle. Two practices had a value lower than three (neither agree nor disagree); the statements were "The surfaces are converted to green surfaces by planting some plant species such as carrots, beets, beans, etc. (mean= 2.61)" and " There is a sustainable garden to provide the opportunity for chefs to identify the stages of growth of sustainable raw materials cultivated. (mean= 2.38)".

One of the key findings of this is that the respondents' answers were neutral regarding planning menus' practices in their hotels (mean= 2.87). There were four practices in this dimension. According to the mean were as follows "Local farms are contracted to supply sustainable food raw materials. (mean= 3.22)", "Be sure that the fish species listed are sustainable (mean= 3.11)", 1. "Seasonal products are used whenever possible (mean= 3.07)", and "Local raw materials are recognized when designing menus whenever possible (mean= 2.10)".

Table2: Answers of Respondents on Management Awareness and Commitment to Sustainable Cuisine Practices

Statements	Mean	SD	R	5-Point Likert Scale (%)		
				5+4	3	1+2
1. The hotel management has a culture of sustainability and full knowledge of sustainable kitchen practices.	3.06	1.20	5	39.3	33.7	27
2. The hotel deals with ethical suppliers and a good reputation to choose from.	2.29	1.09	6	16.3	27.4	56.3
3. The hotel provides guests with detailed information on food production methods, calorie values, and environmental impacts from production.	2.10	1.16	7	13.1	24.6	62.3
4. Chefs pay great attention to how to obtain raw materials used in food items.	3.35	1.30	4	50.4	23.4	26.2
5. The hotel management is concerned with training staff on how to plan the menu seasonally and sustainably.	2.38	1.04	3	15.9	23.4	60.7

6. Economic equipment is used to consume water and energy in food preparation and cooking sites.	3.74	1.11	2	63.5	19.0	17.5
7. Continuous monitoring and registration of all equipment and devices is performed periodically and preventive maintenance is carried out.	3.82	1.14	1	63.5	24.2	12.3
General Mean	2.96					

N.B: SD, "Standard Deviation", R, "Ranking", 5= "Strongly Agree", 4="Agree", 3 ="Neither Agree nor Disagree", 2="Disagree", 1="Strongly Disagree"

Table3: Answers of Respondents on Sustainable Cuisine Practices

Statements	Mean	SD	R	5-Point Likert Scale (%)		
				5+4	3	1+2
Sustainable Cuisine Practices (3.26)						
Growing Food (2.78)						
1. Visits to local farms are conducted periodically so that employees can identify the products they work with.	3.38	.88	1	40.5	46.4	13.1
2. The surfaces are converted to green surfaces by planting some plant species such as carrots, beets, beans ... etc	2.61	1.26	2	25.8	27.4	46.8
3. There is a sustainable garden to provide the opportunity for chefs to identify the stages of growth of sustainable raw materials cultivated.	2.38	1.04	3	15.9	23.4	60.7
Planning Menus (2.87)						
1. Seasonal products are used whenever possible.	3.07	1.19	3	39.7	33.7	26.6
2. Local raw materials are recognized when designing menus whenever possible.	2.10	1.16	4	13.1	24.6	62.4
3. Be sure that the fish species listed are sustainable.	3.11	1.25	2	40.5	31.7	27.8
4. Local farms are contracted to supply sustainable food raw materials.	3.22	1.29	1	48	24.2	27.8
Cooking and Serving Food(3.60)						
1. We have highly skilled chefs working in a sustainable environment.	3.62	1.16	2	65.1	19.8	15.1
2. The best methods of sustainable cooking are used to reduce cooking time.	3.65	1.08	1	55.6	29.0	15.5
3. There is constant control over consumption rates such as installing counters to indicate the energy consumption rates and controlling the consumption rate at cooking.	3.54	.91	3	57.1	31.3	11.5
Waste and storing Food (3.76)						
1. The management of the hotel is obliged to follow the policies of recycling the waste of food through the conversion of waste to organic fertilizer on site or through an external contractor doing so.	3.45	1.11	4	54.8	20.6	24.6
2. Food is purchased from suppliers using minimum packaging or no packaging.	3.65	.965	3	57.5	32.1	10.3
3. Raw materials are procured in recyclable and reused containers.	3.66	1.16	2	62.3	18.7	19.1
4. Food storage policies are followed, such as following production dates and expiry dates to prevent waste.	4.30	1.16	1	81.3	8.3	10.4

N.B: SD, "Standard Deviation", R, "Ranking", 5= "Strongly Agree", 4="Agree", 3="Neither Agree nor Disagree", 2="Disagree", 1="Strongly Disagree".

Table (3) revealed that the investigated hotels provided waste and storing food (mean= 3.76). These practices agreed with what was mentioned by Kasimu (2012) that the

International Hotel & Restaurant Association (IH &RA) recently realized the need for more sustainable practices and has developed a set of ecological, business smart solutions.

Practices they promote include increasing recycling and encouraging the use of sustainable materials. The high practices in this principle included the statements, "Food storage policies are followed, such as following production dates and expiry dates to prevent waste (mean= 4.30)", "Raw materials are procured in recyclable and

reused containers (mean= 3.66)", "Food is purchased from suppliers using minimum packaging or no packaging (mean= 3.65)", "The management of the hotel is obliged to follow the policies of recycling the waste of food through the conversion of waste to organic fertilizer on site or through an external contractor doing so. (mean= 3.45)".

Table 4: Sustainable Cuisine Practices and Achieving Competitive Advantage

Statements	Mean	SD	R	5-Point Likert Scale (%)		
				5+4	3	1+2
Sustainable Cuisine Practices and Achieving Competitive Advantage (3.69)						
1. The hotel management has highly-skilled human resources to work in a sustainable environment compared to other competitive hotels.	4.10	1.01	3	75.8	14.7	9.5
2. The management of the hotel has farms to produce sustainable raw materials with certain specifications that differentiate them from other competing hotels	3.37	1.13	7	49.2	29.4	21.4
3. Hotel management has the ability to offer sustainable products to its customers compared to other competitive hotels.	3.49	1.12	6	58.4	18.7	23.1
4. The management of the hotel has the potential to achieve cost leadership throughout the application of sustainable kitchen practices compared to other competitive hotels.	4.14	1.01	2	71.8	19.4	8.7
5. Hotel management has the ability to use environmentally-friendly appliances at a high rate compared to other competing hotels.	3.49	1.12	5	58.4	18.7	23.1
6. The hotel management has the ability to use new sustainable methods in the preparation and processing areas compared to other competing hotels.	3.54	1.23	4	57.6	17.5	25
7. The hotel management has distinct recycling programs that distinguish them from other competing hotels.	4.21	1.01	1	78.2	14.3	7.6
8. The management of the hotel has supply companies that supply the products with the specifications required to differentiate them from other competing hotels.	3.22	1.	8	48	24.2	27.8

N.B: SD, "Standard Deviation", R, "Ranking", 5= "Strongly Agree", 4="Agree", 3="Neither Agree nor Disagree", 2="Disagree", 1="Strongly Disagree".

The results in Table (4) showed that the overall mean for the seven practices related to sustainable cuisine practices and achieving competitive advantage was (mean= 3.69) (equal to agree). The statements were in a descending order: "The hotel management has distinct recycling programs that distinguish them from other competing hotels (mean= 4.21)", "The management of the hotel has the potential to achieve cost leadership throughout the application of sustainable

kitchen practices compared to other competitive hotels (mean= 4.14)", "The hotel management has highly skilled human resources to work in a sustainable environment compared to other competitive hotels (mean= 4.10)". These results agreed with what was mentioned by (Jackson and Seo, 2010; Cherian and Jacob, 2012) who asserted that establishments which pay attention to the greening of human factors may be more productive, thus gaining a competitive advantage. In contrast,

organizations, which do not have a comprehensive program for using green human resource management, will have potential limitations in the effectiveness of their environmental program (Renwick, Redman and Maguire, 2013): "The hotel management has the ability to use new sustainable methods in the preparation and processing areas compared to other competing hotels (mean= 3.54)", "Hotel management has the ability to use environmentally friendly appliances at a high rate compared to other competing hotels (mean= 3.49)", " Hotel management has the ability to offer sustainable products to its customers compared to other competitive hotels (mean= 3.49)", " The management of the hotel has farms to produce sustainable raw materials with certain specifications that differentiate them from other competing hotels (mean= 3.37)", "The management of the hotel has supply companies that supply the products with the specifications required to differentiate them from other competing hotels (mean= 3.22)

Testing Research Hypotheses

Spearman Correlation Analysis

To test the correlations among study variables, the researcher chooses correlation analysis (R), and the coefficient of determination (R Square). Studying relationships among study variables is important to identify the degree of effectiveness for each factor on the other factors. According to the results of the Spearman correlation between sustainable cuisine practices and competitive advantages in the table (5), the value of Spearman correlation coefficient between sustainable cuisine practices and competitive advantages was 0.598. This shows that there is a strong

positive correlation between the two variables.

The table also shows that the most closely element related to sustainable cuisine practices (Growing Food) and achieving competitive advantage is the delivery reliability as it achieved 0.051 as a value of Spearman correlation, then planning menus that achieved 0.459, followed by cooking and serving food that achieved 0.318, and waste and storing food that achieved 0.445.

Table 5: Spearman Correlation between Sustainable Cuisine Practices and Competitive Advantages

Sustainable Cuisine Practices	Correlation Coefficient	Sig
Growing Food	0.051	000
Planning Menus	0.459	000
Cooking and Serving Food	0.318	000
Waste and Storing Food	0.445	000
Competitive Advantages	0.598	000

Simple Linear Regression Analysis

Table (6) depicts the simple linear regression analysis between sustainable cuisine practices and competitive advantage.

Through Table.6, we find that R Square has a value of 0.358 while the Adjusted R Square was 0.355, which indicates a decrease in the difference between them at a standard error of 0.345, as it emphasizes the quality and accuracy of the results, and accordingly we can say that the independent variable is (sustainable cuisine practices) explains 34.5% of the changes in the dependent variable, which is (competitive advantage).

Table 6: Simple Linear Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.598 ^a	.358	.355	.34527

a. Predictors: (Constant), competitive

The current research aims to study the extent of the implementation of sustainable cuisine practices, to measure the awareness of managers and staffs of sustainable cuisine

practices, and to study the effect of applying sustainable cuisine practices on achieving competitive advantage. The results of the research showed that the level of awareness of managers and staffs with sustainable cuisine practices was at an average level. The findings in this research have highlighted that the investigated hotels implemented sustainable cuisine practices at a moderate level. The value of Spearman correlation coefficient between sustainable cuisine practices and competitive advantages was 0.598. This shows that there is a strong positive correlation between the two variables and the simple linear Regression analysis between sustainable cuisine practices and competitive advantage. Results show that sustainable cuisine practices clearly affect competitiveness. The researchers set some recommendations as follows:

- Hotels adopt an integrated strategy to integrate sustainable management with the goal of continuous improvement in order to achieve sustainable access to sustainable growth within the framework of the surrounding competitive environment.
- Conducting training courses for hotel owners and managers and their employees on the concepts of sustainable cuisine in addition to updating and adding study courses in colleges of tourism and hotels.
- Directing hotels to use the recycling policy of modern technologies that lead to rationalization of consumption and reduction of waste and waste rates in a manner that guarantees environmental practices.
- Establishing introductory and promotional programs for customers to spread the culture of sustainable cuisine and work towards adopting rationalization practices towards the environment.
- Urging hotel menu planners to use available local products, taking into account all considerations of menu planning in order to achieve diversity, innovations and sustainability.
- A hotel to update and review contracts with suppliers and prepare a database of approved and enforced suppliers of policies and practices.
- Encouraging hotels to take advantages of the distances to grow types of local products according to the required quality specifications.

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