

Green Practices in Quick Service Restaurants in Egypt (Analytical Study)

Ahmed Hassan Metwaly Mohamed

Mohamed Abdelfattah Zohry

Mohamed Ahmed Mahmoud

Mohamed Elsaied

Faculty of Tourism and Hotels, Mansoura University

Abstract

Environmental sustainability is become an essential part of business practices in all industries. Consumers' demand for safe and environmentally friendly products has also increased unexpectedly. Therefore, "greening" becomes a key of growth and progress for many organizations. This research aims to identify to what extent the investigated quick service restaurants (QSRs) chains in Greater Cairo implement the green practices. In order to achieve this aim, a self-administrated questionnaire was designed and distributed on a random sample of employees in the investigated restaurants. A total of 480 questionnaires were distributed, only 379 (78.9%) form were valid to analyse. The findings of the filed study showed that the majority of the investigated restaurants indicated that the level of implementation of green practices was moderate in all dimensions of green practices. Also the results showed that the majority of restaurants care about implementing energy conservation practices (i.e., Energy saving equipment and devices, such as energy-saving blubs) are used) on other hand, they aren't care about implementing sustainable food practices.

Keywords: Quick Services Restaurants, green Practices, Egypt.

Introduction

Becoming green or "going green" has become a widespread slogan in several industries around the world. There are many business practices and products which are characterized as organic, sustainable, energy efficient, eco-friendly, locally produced and green. Many of these green terms are confusing and it is not easy for investors to make a decision to invest in these green practices based on the lack of information provided. Therefore, the hospitality industry implemented some of these practices in diverse forms. Restaurants have followed slower way to implement green practices compared to other sectors in the hospitality industry, however currently, there are pursuing the same approach and adopting green practices, that have positive impacts on the surrounding environment and reduce the negative impacts (Dutta et al., 2008; First, 2008; Deveau, 2009 and Gise, 2009).

According to Pacific, Gas and Electric's Food Service Technology Center (FSCT), restaurants consume a large amount of total energy consumption in all over the world, this compared to the consumption of other commercial organizations (Jeong et al., 2014). Restaurants and food service establishments consume 2.5 once more energy consumption per square foot compared to consumption of other commercial organizations (Ham and Lee, 2011 and Dewald et al., 2014). QSRs generate large amounts of waste daily compared to waste generation of other establishments (Horovitz, 2008). (DiPietro et al., 2013 agreed with first, 2008) which stated that in the US the average consumption of the water in restaurants about 300 gallons annually.

Upon the previous remarks, the current research aims to determine to what extent the investigated QSRs implement green practices in their operation and to identify the level of environmental awareness of the investigated employees.

Review of literature

According to Manaktola and Jauhari (2007) the concept of green practices or eco-friendly practices that have been taken into consideration following the emergence of the concept of "environmentally-friendly products" that has been defined as "practices aim to reduce the negative impact of the product". Similarly, services can significantly affect on the surrounding environment,

and thus aim to prevent negative impacts, this is achieved through implementing of eco-friendly practices for example: using recyclable products, rationalizing energy consumption, conserving natural resources, using energy-efficient and environmentally friendly equipment, reducing waste, using recycling policies and implementing environmental conservation programs. All of which are referred to green practices. Going green means “Being environmentally responsible and utilizing practices that minimize the damage done to the environment” (DiPietro and Gregory, 2012).

Jang et al. (2011) defined the green restaurant as "the restaurant that implements green practices, including recycling and composting, water and energy efficiency, and waste management, as well as the option of locally grown or organic foods".

According to National Restaurant Association (2013), a large number of restaurants plan to implement the green practices by investing in purchase of environmentally friendly equipment to save energy and water. Among restaurants surveyed, 85 percent of QSRs and 80 percent of family-dinning and fast-casual operators said they planned to invest in energy- saving lighting and equipment. Several restaurants have used organic foods and use sustainable materials in their food menus (Bonn et al., 2016). Carbonara (2007) mentioned that it was previously thought that implementing green practices in restaurants were very expensive, and these will an opposite in front of the production of high quality products. But with increased demand for eco-friendly products, this has become easier to implement and less expensive. This is due to the union of restaurant operators to negotiate on prices when purchasing raw materials and equipment for the operation, and get them at the lowest prices and high quality. So, it is become easy to implement green practices in recent times.

As part of the environmental programme enhancement practices, human resource managers have to encourage employees to participate and initiate green and eco-friendly ideas through empowering employees (Ahmad, 2015).

Mostafa (2006) have shown that awareness usually influences pro-environmental attitudes, which, in turn, motivate environmentally responsible behaviour. How-ever, the implementation of environmental practices could be hindered as a result of a lack of environmental awareness and skill (Chan, 2008).

Sloan et al. (2013) indicated that the Green Restaurant Association (GRA), a US non-profit organization, with the mission of creating an ecologically sustainable restaurant industry, established several environmental guidelines for restaurants and promoted examples of best practices to facilitate achieving environmental sustainability. Any restaurant want to get green certification it must apply the seven environmental categories as follow; water efficiency, energy, sustainable food, waste reduction and recycling, sustainable furnishings and building materials, chemical and pollution reduction and disposables.

Water Conservation Practices

The U.S. Environmental Protection Agency (2012) presented additional tips besides upgrading equipment to energy star qualified models for saving water which include: educating users on proper dishware prep and loading techniques, installing waster sense labelled toilets, urinals, and bathroom faucets, maintaining good operation of water using equipment by repairing any damage to the equipment and the plumbing, treating and reusing onsite water sources (e.g., irrigation, toilet flushing, and water fixtures).

Energy Conservation Practices

Sustainable Food Service Consulting (2013) found that helpful tips for energy conservation include: upgrading equipment to energy star qualified appliances, providing preventative maintenance on equipment such as regularly cleaning and maintenance, making repairs efficiently and promptly,

installing energy efficient lighting such as occupancy sensors and LED" Light-Emitting Diodes" light bulbs, and implementing start up and shut down schedules for equipment operations.

Sustainable Food Practices

According Dalmeny and Reynolds (2007), sustainable food choices—local, seasonal, organic often overlap as restaurants make complex choices guided by a number of factors from cost, convenience, availability and demand. A food item may be local, organic and seasonal. Many restaurants begin their sustainability journey by sourcing local and seasonal food. Restaurants can support local food economies with the attendant environmental, social and economic benefits. Some of the options open to restaurants supporting local food economies are: growing their own food, farmers markets, community supported agriculture, fair trade and smaller suppliers.

Waste Reduction and Recycling Practices

Snarr and Pezza (2000) stated that restaurants can avoid waste creation by reducing consumption and reusing objects through the following techniques: purchasing products with recycled content, establishing purchasing guidelines, repurposing items instead of discarding. Restaurants can incorporate the popular program (3Rs) Reduce, Reuse, Recycle for waste management including the management of food waste, plastics, glass and paper or paper boards.

According to Chan's study (2008), there are three obstacles to the implementation of green practices. The first obstacle; lack of knowledge, understanding and availability of advice. The second obstacle; lack of resources. The third obstacle; high implementation and maintenance cost.

Research Methodology

The population of this research consisted of the employees in back area and front area from crew and crew trainer of international QSRs in Greater Cairo which classified as tourists restaurants. The investigated restaurants were chosen for these reasons. Firstly, because the number of branches of QSRs chains in Greater Cairo (124) is greater than the rest of other Governorates (60), according to the statistic of the Chamber of Tourism Establishments (CTE) (2017). Secondly, restaurants consume a large amount of total energy and water consumption in all over the world this compared to the consumption of other commercial organizations (DiPietro et al., 2013 and Jeong et al., 2014), and generate large amounts of waste daily compared to waste generation of other establishments (Horovitz, 2008).

Table 1: the investigated sample of international QSRs chains

No	Restaurants chains	Population	The Investigated Branches	Number of Forms
1	MacDonald's	35	14	145
2	Pizza Hut	23	9	85
3	Tikaa	10	6	60
4	K.F.C	32	15	150
5	Hardees	6	3	30
6	Domino's Pizza	1	1	10
Total		107	48	480

According to CTE (2017), the total numbers of QSRs chains branches in Egypt are 184 which are affiliated to international chains and that got the tourist classification from CTE. In Greater Cairo there are about 14 chains of tourists QSRs chains and there are 124 branches of these chains. A sample of six (43%) chain and 48 (44.9%) restaurants were selected randomly from 107 restaurants branches from branches of investigated chains to adopt the filed study.

Research Aims

This research aimed to study to what extent investigated QSRs are adapting and implementing green practices in their restaurants. This aim may be achieved through several objectives as follows

Measuring the awareness of employees of green practices.

Determine the extent of implementation of water conservation practices, energy conservation practices, sustainable food practices and waste reduction and recycling practices.

Research Hypothesis

There is a significant difference among employees' response to their awareness of green practices according to age at a significance level of 5%.

There is a significant difference among employees' response to their awareness of green practices according to educational level at a significance level of 5%.

A quantitative approach was adopted to achieve the study objectives; the study has developed structured questionnaire as the result of the literature review (Going green, 2008; Chen et al., 2009; Sloan et al., 2013; Sustainable Foodservice Consulting, 2013; Raymond, 2016; Green restaurants association, 2011).

The questionnaire form was piloted on 50 of the respondents to validate the constructs of the study. The purpose of the pilot study was to refine the questionnaire and identify any potential problems. As a result, ambiguity and unclear words have been eliminated from the questionnaire. The final questionnaire consisted of three parts; the first part intended to reveal the employees' demographic data, which included gender, age, educational level, years of experience. The second part aimed to study awareness of employees of green practices. The third part aimed to study the implementation of green practices which covered four dimensions in terms of study; water conservation practices, energy conservation practices, sustainable food practices and waste reduction and recycling practices. The respondents were asked to indicate their agreement of the statements on five points of Likert-type scales, which range from 5= strongly agree to 1= strongly disagree. To determine the levels of agreement with the statements investigated. The Statistical Package for the Social Sciences (SPSS) version 22.0 was used to analyze and compute the collected data.

Results and discussions

The following part presents the response of the employees on the study dimensions.

The results in table (2) show a study sample demographic data and variables. Amongst the respondents, 78.4% were male, 21.6% were female, and this indicates that the majority of employees were male. The age variable represented as; 77.8% in less than 30 years, 17.4% were from 30-40 years, 4.7% More than 40 years - Less than 50 years, none of them were 50 years and over.

The data concerns respondents education level variables shows that 71.8% were in vocational or technical school, 24.3% bachelors degree, 4% were in Postgraduate (Diploma -Master-PhD), this indicates that more than half of the sample were vocational or technical school. Description of demographic data shows respondents years of experiences as; 85.8% were in less than 5 years, 11.9% were in from 5–10 years and 2.9% were in 10 years and over.

Table 2: Demographic Data of the Respondents

Demographic Data	Attribute	Freq.	Percent (%)	Ranking
Gender	Male	297	78.4	1
	Female	82	21.6	2
Total		379	100.00	

Age	Less than 30 years	295	77.8	1
	From 30 – 40 Years	66	17.4	2
	More than 40 years - Less than 50 years	18	4.7	3
Total		379	100.00	
Educational level	Vocational or technical school	272	71.8	1
	Bachelors degree	92	24.3	2
	Postgraduate(Diploma - Master – PhD)	15	4.0	3
Total		379	100.00	
Years of Experience	Less than 5 years	325	85.8	1
	From 5 – 10 Years	45	11.9	2
	10 years and over	9	2.9	3
Total		379	100.00	

From the tabulated data in table (3), it could be noticed that the majority of the respondents agreed that there were awareness of the following statements according to the mean "You have awareness of the impact of QSRs on the surrounding environment " at (Mean= 4.10),"You have awareness of control and maintenance plans" at (Mean= 3.63) and "You have awareness of economic devices and equipment in water and energy consumption e.g., the installation of automatic shut-off valves which works with infrared radiation and use energy-saving bulbs (LED: Light-Emitting Diodes.) etc.)" at (Mean= 3.59).

Table3: Awareness of employees of green practices.

Statements	Mean	SD	R
1. You have awareness of the impact of QSRs on the surrounding environment.	4.10	0.93	1
2. You have awareness of economic devices and equipment in water and energy consumption e.g., the installation of automatic shut-off valves which works with infrared radiation and use energy-saving bulbs "LED: Light-Emitting Diodes" etc.).	3.59	1.07	3
3. You are familiar with the biological treatment methods of gray water (gray water: Washing water in the kitchen).	2.30	1.15	9
4. You have awareness of control and maintenance plans.	3.63	1.13	2
5. You have awareness of the sustainable training about the ingredients that employees uses.	2.49	1.33	6
6. You are familiar with local organic foods used in menu ingredients.	2.39	1.18	7
7. You are aware of "Fair-trade" certified products.	2.32	1.16	8
8. You are familiar with recycling policies, such as waste separation and print menus on recycled paper).	3.15	1.18	4
9. You are aware of the opportunity of the implementation of green practices for caterers, diners and community.	2.71	1.28	5
General mean and standard deviation	2.96	0.64	-

N.B: SD="Standard Deviation"; R="Ranking".

Meanwhile, their aware were neutral toward the statement of "You are familiar with recycling policies, such as waste separation and print menus on recycled paper)" at (Mean = 3.15). On other hand, the results shows that they were disagreed that there were aware of the following statements "You are aware of the opportunity of the implementation of green practices for caterers, diners and

community" at (Mean= 2.71)," You have awareness of the sustainable training about the ingredients that employees uses" at (Mean= 2.49), "You are familiar with local organic foods used in menu ingredients" at (Mean= 2.39), "You are aware of" Fair-trade" certified products" at (Mean= 2.32) and " You are familiar with the biological treatment methods of gray water" at (Mean= 2.30). From the results, it could be noticed that the employees of investigated restaurants were aware of green practices at moderate level at (Mean= 2.96).This result conflicted with Ahmed (2015).which stated that managers have to encourage employees to participate and initiate green and eco-friendly ideas through empowering employees, this indicates that the level of awareness and participation of employees in QSRs was moderate.

Concerning the results in table 4 water conservation practices dimension, it could be concluded that the employees agreed that the restaurants implementing the following practices according to mean "Regular and preventive maintenance of water systems is carried out to reduce water losses" at (Mean=4.12) this result agreed with the practices of (Sustainable Food Service Consulting, 2013), " Your restaurant uses methods that encourage employees to conserve water consumption, such as using stickers" at (Mean=3.96) and the statement "There is continuous monitoring of the water consumption rates in the restaurant and its periodic registration" at (Mean=3.66). Meanwhile, their answers were neutral toward the following statement " Usage of economically equipment for water consumption e.g. the installation of a system to control the flow of water- Installation of automatic shut-off valves operated by sensors through infrared radiation)" at (Mean=2.88). On other hand, they strongly disagreed that the restaurants implement biological treatment of gray water (Mean=1.70). It could be noticed that the implementation level of water conservation practices were investigated restaurants were moderate level at (Mean= 3.26).This result agreed with some green practices which stated by U.S. Environmental Protection Agency (2012).

One of the main results of the study is that the respondent's answers were agreed on that the investigated restaurants were implementing energy conservation practices with difference means. There were five practices in this dimension. Among those practices that obtained a large agreement from the study sample are the following practices according to the mean: "Energy saving equipment and devices, such as energy-saving blubs) are used" at (Mean=4.00), " Posters are used to sensitize and encourage employees on optimal energy consumption" at (Mean=3.94), "Your restaurant minimize the opening of cold storerooms and freezers continuously" at (Mean=3.84) and" Continuous monitoring and registration of all equipment and devices is carried out periodically and preventive maintenance is carried out." at (Mean=3.78). But on the other side the respondents disagreed that the restaurants implemented sensors are used to separate energy from unnecessary lighting sources in intermittent areas, such as toilets and stores at (Mean=2.01).The results showed that the implementation level of energy conservation practices were acceptable level at (Mean=3.51). This result agreed with energy conservation practices which stated by Sustainable Food Service Consulting (2013).

Table 4: Implementation of green Practices in QSRs.

Statements	Mean	SD	R
A. water conservation practices	3.26	0.55	-
Usage of economically equipment for water consumption e.g. the installation of a system to control the flow of water- Installation of automatic shut-off valves operated by sensors through infrared radiation).	2.88	1.20	4
There is continuous monitoring of the water consumption rates in the restaurant and its periodic registration.	3.66	0.99	3
Regular and preventive maintenance of water systems is carried out to reduce water losses.	4.12	0.93	1

Biological treatment of gray water (gray water produced from washing water in the kitchen) is carried out and used for cleaning purposes in toilets and other purposes.	1.70	0.75	5
Your restaurant uses methods that encourage employees to conserve water consumption, such as using stickers.	3.96	0.93	2
B. Energy Conservation Practices	3.51	0.61	-
Energy saving equipment and devices, such as energy-saving blubs) are used.	4.00	1.09	1
Sensors are used to separate energy from unnecessary lighting sources in intermittent areas, such as toilets and stores.	2.01	1.12	5
Continuous monitoring and registration of all equipment and devices is carried out periodically and preventive maintenance is carried out.	3.78	0.91	4
Your restaurant minimizes the opening of cold storerooms and freezers continuously.	3.84	0.93	3
Posters are used to sensitize and encourage employees on optimal energy consumption.	3.94	0.99	2
C. Sustainable Food Practices	2.57	0.55	-
Your restaurant use seasonal food row materials in menu design.	1.58	0.69	5
Your restaurant are purchasing of food products directly from the local farms with attention being paid to pay fair prices.	2.68	1.17	3
The restaurant management is involved in the cultivation of food items that are included in the menus.	2.22	1.03	4
Your restaurant use animal products from high quality companies.	3.16	1.21	2
Staffs are trained on methods that enhance the goals and guidelines of the eco-friendly practices e.g. (sustainable training).	1.75	0.83	6
In your restaurant, bread and bakery items baked fresh daily by local bakeries	4.05	1.01	1
D. Waste Reduction and Recycling Practices	3.11	0.47	-
The 3Rs policy (reduction, reusing and recycling) is used to deal with waste.	2.91	1.22	5
Recycled papers are used (such as printing menu on an eco- paper and recycled paper).	1.70	0.96	7
Digital menu are used to reduce the loss of paper used to print menus.	2.43	0.91	6
The cooking oil used is disposed of in an environmentally sound manner.	3.76	0.96	2
Waste separation occurs (glass, paper, metal and etc.).	3.29	1.15	4
Sensor dryers are used in toilets.	4.06	0.99	1
Your restaurant reduces food waste to save the energy, money, effort and natural resources.	3.66	1.12	3
General mean and standard deviation	3.09	0.39	-

N.B: SD="Standard Deviation"; R="Ranking"

By presenting and discussing the results in table 4 of implementation of sustainable food practices. The levels of agreement of participants on sustainable food practices dimension were different levels according to mean as follows; the results showed that the employees agreed that the

investigated restaurants were implemented one sustainable food practices "In your restaurant, bread and bakery items baked fresh daily by local bakeries" at (mean= 4.05). Meanwhile the answers of the participants were neutral toward three practices according to mean; " Your restaurant use animal products from high quality companies" at (Mean=3.16), "Your restaurant are purchasing food products directly from the local farms with attention being paid to pay fair prices" at (Mean= 2.68) But on the other side, the employees answers disagreed on that the investigated restaurants were implemented the following practices according to the mean; "The restaurant management is involved in the cultivation of food items that are included in the menus" at (Mean=2.22)," Your restaurant use seasonal food row materials in menu design" at (mean= 1.58) this result disagree with (Bonn et al., 2016) and "Staffs are trained on methods that enhance the goals and guidelines of the eco-friendly practices e.g. (sustainable training)." at (Mean=1.75).from the previous results, it be concluded that the investigated restaurants not care about the implementation of sustainable food practices which the results shows that the level of implementation were weak level at (Mean= 2.58.This result agreed with practice mentioned by Dalmeny and Reynolds (2007), and disagreed with the practices mentioned by(Chen et al., 2009).

Regarding with waste reduction and recycling practices dimension. It could be noticed that, the investigated respondents were agreed that the restaurants were implemented the following practices according the mean; "Sensor dryers are used in toilets" at (Mean=4.06), "The cooking oil used is disposed of in an environmentally sound manner" at (Mean=3.76) and "Your restaurant reduces food waste to save the energy, money, effort and natural resources)." at (Mean=3.66). Meanwhile, the following statements had a moderate level of respondents; the statements of "Waste separation occurs (glass, paper, metal and etc.)" at (Mean=3.29), "The 3Rs policy (reduction, reusing and recycling) is used to deal with waste" at (Mean=2.91), "The 3Rs policy (reduction, reusing and recycling) is used to deal with waste" at (mean= 2.88). On other hand, they were disagreed that the restaurants were implemented the following practices:" Digital menu are used to reduce the loss of paper used to print menu" at (mean= 2.43) and the statement of " Recycled papers are used (such as printing menus on an eco- paper and recycled paper) at (mean= 1.70). The results showed that the implementation level of waste reduction and recycling practices was moderate level at (Mean= 3.09). This result agreed with some of practices which stated by Snarr and Pezza (2000).

Testing the study Hypotheses

To test the study hypotheses. Kruskal-Wallis test and Mann-Whitney test were used to examine the differences among respondents with regard to the other variables. Kruskal-Wallis test was used to compare three or more groups and Mann-Whitney test was used to compare just two groups the test was used at a significance level of 5%.

Testing the first hypothesis

To test the first hypothesis that said "There are statistically significant differences among employees' response to their awareness of green practices based on age ". The researcher used Kruskal-Wallis test and Mann-Whitney test to define the source of difference among employee's responses.

The results of testing the first hypotheses in table (5) indicated that, according to age the results showed that p.value= 0.01. This was less than the level of significance 0.05.Thus; it concludes that there was a difference between the responses of the study toward awareness according to age.

Table 5: Differences among employee's responses towards awareness of green practices according to age and educational level.

Variable	Categories	Ranks		Test Statistics		
		N	Mean Rank	(x ²)	p.value	Sig
Age	Less than 30 years	295	184.24	9.21	0.01	H.S

	From 30 – 40 years	66	195.61			
	More than 40 years - Less than 50 years	18	263.89			

Significant at $P \leq 0.05$ N.S= Non Significant H.S= High Significant χ^2 =Chi-Square

The results in table (6) showed that, the sources of differences were among group those who have awareness of green practices (From 30 – 40 years and more than 40 years - Less than 50 years) at p.value= 0.00. And there were difference among group (Less than 30 years and more than 40 years - Less than 50 years) at p.value= 0.00 H1 could be accepted.

Table 6: Sources of differences among employee's responses towards awareness of green practices according to age.

Variable	Categories	Ranks		Test Statistics		
		N	Mean Rank	(z)	p.value	Sig
Age	Less than 30 years	295	178.95	-0.790	0.43	N.S
	From 30 – 40 years	66	190.16			
	From 30 – 40 years	66	38.95	-2.561	0.01	H.S
	More than 40 years - Less than 50 years	18	55.53			
	Less than 30 years	295	153.29	-2.944	0.00	H.S
	More than 40 years - Less than 50 years	18	217.86			

Significant at $P \leq 0.05$ N.S= Non Significant H.S= High Significant z =Chi-Square

Testing the second hypothesis

To test the second hypothesis that said "There are statistically significant differences among employees' response to their awareness of green practices based on educational level". The researcher used Kruskal-Wallis test and used Mann-Whitney test to know the source of difference among employee's responses.

The results of testing the second hypotheses in table (7) indicated that, according to educational level it's clear that p.value = 0.00. Which was less than the level of significance 0.05. Thus, it concludes that there are differences between the responses toward awareness according to educational level.

Table 7: Differences among employee's responses towards awareness of green practices according to educational level.

Variable	Categories	Ranks		Test Statistics		
		N	Mean Rank	(χ^2)	p.value	Sig
Educational level	Vocational or technical school	272	174.26	20.25	0.00	H.S
	Bachelors degree	92	227.66			
	Postgraduate(Diploma - Master – PhD)	15	244.40			

Significant at $P \leq 0.05$ N.S= Non Significant H.S= High Significant χ^2 =Chi-Square

The results in table (8) showed that, the sources of differences were back to those who have awareness of green practices from vocational or technical school and those with bachelor's degree at p.value=0.00 . Also among those who have vocational or technical school and postgraduate (Diploma - Master – PhD). Hence, H2 could be accepted.

Table 8: Sources of differences among employee's responses towards awareness of green practices according to educational level.

Variable	Categories	Ranks		Test Statistics		
		N	Mean Rank	(z)	p.value	Sig
Educational level	Vocational or technical school	272	169.53	-4.052	0.00	H.S
	Bachelors degree	92	220.86			
	Bachelors degree	92	53.30	-.575	0.56	N.S
	Postgraduate(Diploma - Master – PhD)	15	58.27			
	Vocational or technical school	272	141.24	-2.408	0.01	H.S
	Postgraduate(Diploma - Master – PhD)	15	194.13			

Significant at $P \leq 0.05$ N.S= Non Significant H.S= High Significant z =Chi-Square

Conclusion and Recommendation

The current research aim to study the extent of the implementation of green practices in QSRs and aim to measuring the awareness of employees of green practices. The results of the research showed that the level of awareness of employees of green practices was at an average level. This may be due to the fact that the majority of employees are qualified for a vocational or technical school; this is reflected in the fact that the level of awareness of green practices was moderate. The findings in this research have highlighted that the investigated restaurants implemented energy conservation practices at an acceptable level. And showed that the investigated restaurants implement water conservation practices and waste reduction and recycling practices at a moderate level. On other side the results showed that the investigated restaurants not care about the implementation of food sustainable practices. The results of research showed that the level of implementation of green practices in investigated restaurants was moderate level.

The results of the hypothesis test showed that there is a statistically significant difference among employees' response to their awareness of green practices according to age and educational level.

After reviewing the results of the research, it is possible to come up with a set of recommendations.

Recommendations for Ministry of Tourism

Establishment a special unit in Ministry of Tourism responsible for the implementation of green practices in restaurants similar to the green unit responsible for the implementation of green practices in hotels sector.

Continuous cooperation between Ministry of Tourism and the green certifier's organizations in order to improve the performance of managers and employees towards the optimal implementation of the standards of green practices.

The Ministry of Tourism should adopt competitive competitions among the chains of restaurants to select the best restaurants that are interested in implementing green practices, and deduct the tax rate for them.

Legislation of a set of environmental laws and regulations by the competent authorities obligates QSRs apply such practices when renewing the license or using new license.

Establish a separate department within QSRs chains follows the Quality department, which will be responsible for evaluating and following up the implementation of green practices within chain restaurants according to green accreditation standards.

Recommendations for Employees of Restaurants

Raising the level of employees' performance to be more effective and efficient through: Establishing a set of training courses and programs that helps restaurants employees to improve their personal, practical and behavioral skills to have a high level of implementation of green practices.

Regular training of employees should be undertaken to raise environmental awareness towards the implementation of standards of green practices.

Linking employees' equivalents to actual performance by implementing green practices in restaurants, which motivate them to increase interest in the optimal implementation.

References

- Ahmad, S., 2015. Green human resource management: policies and practices. *Cogent Business & Management*, 2, 1030817.
- Bonn, M., Cronin, J., Cho, M. (2016). "Do Environmental Sustainable Practices of Organic Wine Suppliers Affect Consumers' Behavioral Intentions?" *The moderating Role of Trust*. *Cornell Hospitality Q.* 57(1), PP.21- 37.
- Carbonara, J. (2007). "It's Not Easy Being Green -- Or Is It?" *Food Service Equipment and Supplies*, .60(9), PP. 13-13.
- Chan, E. (2008). "Barriers to EMS in the Hotel Industry". *International journal of Hospitality Management*, Vol.27, No.2, PP.187-196.
- Chen, J., Legrand, W., and Sloan, P.(2009). "Sustainability in the Hospitality Industry". *Principles of Sustainable Operations*. Oxford. Elsevier
- Chamber of Tourism Establishments. (2017). "Statistics of quick service restaurants". Unpublished. Electronic copy.
- Dalmeny, K. and Reynolds, B. (2007). "One Planet Dining: London's Growing Market for eating out sustainably". London: Sustain, P.18.
- Dutta, K., Umashanker, V., Choi, G., and Parsa, H. (2008). " A Comparative Study of Consumers' Green Practice Orientation in India and the United States": A Study from the Restaurant industry, *Journal of Foodservice Business Research*, 11(3), PP. 269-285.
- Deveau, D. (2009). "Fight the Power". *Food Service and Hospitality*, 41(11), PP. 47–52.
- DiPietro, R. and Gregory, S. (2012). "A Comparative Study of Customer Perceptions Regarding Green Restaurant Practices": *Fast Food vs. upscale Casual*. *FIU Hospitality Rev.* 30(1), PP.1–22.
- DiPietro, R., Gregory, S., and Jackson, A. (2013). "Going Green in Quick-Service Restaurants: Customer Perceptions and Intentions", *International Journal of Hospitality and Tourism Administration*, Vol.14, No.2 , PP.139-156.
- Dewald, B., Bruin, B., and Jang, Y. (2014). "US Consumer Attitudes towards "Green" Restaurants", *Anatolia: International Journal of Tourism and Hospitality Research*, 25(2), PP. 171-180.
- First, D. (2008). "The Greenest of them all". Retrieved from http://www.boston.com/lifestyle/food/articles/2008/12/03/the_greenest_of_them_all/.
- Going Green. (2008). "Nation's Restaurant News", 42(49), P. 55.
- Gise, M. (2009). "Eco-friendly Baby Steps can grow Green Initiatives". *Nation's Restaurant News*, 43(21), P. 44.
- Green Restaurant Association. (2011). "Green Restaurant Certification 4.0 Standards," accessed March 10, 2011, <http://dinegreen.com/restaurants/standards.asp>.
- Horovitz, B. (2008). "Can Restaurants go Green, earn Green? USA Today, Retrieved from <http://usatoday30.usatoday.com/money/industries/ environment/2008-05-15-green-restaurants-eco-friendly n.htm>

- Ham, S. and Lee, S. (2011). "US Restaurant Companies' Green Marketing via a Company Websites": Impact on Financial Performance. *Tourism Economic as*, 17(5), PP.1055-1069.
- Jang, Y., Kim, W., and Bonn, M. (2011)."Generation Consumers' Selection Attributes and Behavioural Intentions Concerning Green Restaurants", *International Journal of Hospitality Management*, 30(4), PP.803-811.
- Jeong, E., Jang, S., Day, J., and Ha, S. (2014)."The Impact of Eco-Friendly Practices on Green Image and Customer Attitudes": An Investigation in Cafe Setting, *International Journal of Hospitality Management*, Vol.41, PP. 10-20.
- Mostafa, M., 2006. Antecedents of Egyptian consumers' green purchase intentions:a hierarchical multivariate regression model. *J. Int. Consum. Market.* 19 (2), 97–126.
- Manaktola, K. and Jauhari, V. (2007)."Exploring Consumer Attitude and Behaviour towards Green Practices in the lodging industry in India". *International Journal of Contemporary Hospitality Management*, 19(5), PP. 364-377.
- National Restaurant Association. (2013). *Shedding Light on Sustainability*, Retrieved January 2, 2016 _[http://conserve.restaurant.org/Downloads/2013 Sustainability Report Final](http://conserve.restaurant.org/Downloads/2013%20Sustainability%20Report%20Final), P.5.
- Raymond, B. (2016). "Implementation of sustainable development practices in the hospitality industry: a case study of five Canadian hotels", *International Journal of Contemporary Hospitality Management*, 28(3), p. 60- 88.
- Snarr, J. and Pezza, K. (2000)."Washington Metropolitan Council of Government" .Recycling Guidebook for the Hospitality and Restaurant Industry. Retrieved from Metropolitan Council of Government website: [http://citeseerx.ist.psu.edu/viewdoc /download? Pdf](http://citeseerx.ist.psu.edu/viewdoc/download?Pdf).
- Sloan, P., Legrand, W. and Chen, J.S. (2013). *Sustainability in the Hospitality Industry: Principles of Sustainable Operations*, Rutledge, retrieved February 10, 2017.
- Sustainable Foodservice Consulting. (2013)."Energy Conservation. Retrieved from <http://www.sustainablefoodservice.com/cat/energy-efficiency.htm>
- U.S. Environmental Protection Agency. (2012)."Saving Water in Restaurants (EPA-832-F-12-032)".Retrieved from website: <http://www.epa.gov/watersense/commercial/>