

Environmental and Social Practices in Luxury Hotels: Customers' Perceptions

Ahmed Rady

Faculty of Tourism & Hotels, Minia University

Abstract

There is growing interest among the customers all over the world for protection of the environment. This research aimed at evaluation of customers' attitude towards environmental and social practices applied at luxury hotels. Customers' perceptions and satisfaction with such practices were also investigated. A questionnaire was carried out covering sample of luxury hotels' customers (4 and 5 star hotels) at three tourist destinations (Cairo, Sharm El Sheikh and Hurghada cities) as vital areas where the big presence of luxury hotels in Egypt (Egypt hotels guide, 2016). For structure validity of the questionnaire, factor analysis test was used. For reliability of questionnaire statements, Cronbach's alpha coefficient was calculated. The Cochran's formula was used to determine the optimal sample size based on the pilot study results. The data collected from the sample was non-normal, so the researcher used non-parametric tests to analyze collected data such as chi-square, Mann-whitney and kruskal-wallis tests to analyze the validity of the hypothesis of the research. The main results of the study were, there are significant differences between three regions of the research with regard to customers' perceptions about hotels' environmental practices, there is no statistical significant correlation between environmental practices at luxury hotels and customer satisfaction, there are significant differences between hotel grades with regard to applying environmental practices and there is statistical significant correlation between environmental practices and social practices at luxury hotels. The study tested the significance of the study model and suggested some recommendations.

Keywords: Environment, Environmental Practices, Social Practices, Customers' Perceptions, Luxury Hotels

Introduction

In the hospitality industry, natural and physical environment are considered as essential assets to enhance the products and services (Ashrafi, 2014). The hotel industry is a vital component of the environmental, social, and economic development of tourism throughout the world. Due to the rapid changes toward the green revolution, it is important to recognize the potential impact of environmental sustainability and the motivations, attitudes, and perceptions of this practice in the industry (Dagher et al., 2015). Mohsin and Lockyer (2010) and Xu et al. (2015) stated that five-star and four-star hotels are grouped as "luxury hotels". Most of the researches on luxury hotels only focused on those rated as four- or five- star hotels, because for some reasons, four- and five-star hotels are highly competitive, are qualified in superlative terms and far surpass normal expectations in elegance, level of luxury, service, design and uniqueness (Chu, 2014). According to the research objectives the term "luxury hotels" is used for five- and four-star hotels. The aim of the study is to assess the customers' perceptions of environmental and social practices applied at Egyptian luxury hotels and to help the hotel management identify areas that need attention to meet and exceed customer expectations.

Problem of the study

All of governments, businesses, and citizens in the world are now concerning in the environmental and social practices. However, in the academic area, there are few academic disciplines have integrated such practices in their papers (Fernandez, *et al.*, 2010). From the pilot

study achieved by researcher (the survey was piloted on a sample of 60 guests, 25 guests at Cairo luxury hotels, 20 guests at Sharm El Sheikh luxury hotels and 15 guests at Hurghada luxury hotels) during the month of October 2017, it concluded that the degree of environment practices at those hotels has been weak (0.20 for mean). As well, the degree of social practices also has been weak (0.30 for mean). Therefore, the problem of the study emerged from this perspective in how to explore the environmental and social practices at luxury hotels and test the customers' perceptions of these practices.

Study objectives

- 1- To determine the gap between theory and practice related to environmental and social practices at Egyptian luxury hotels
- 2- To analyze the environmental and social customers' perceptions in Egyptian luxury hotels
- 3- To provide a proposed model for the study showing the relationship of the environmental practices and the social practices with the customers' satisfaction at Egyptian luxury hotels.

Significance of the research

It was found that the higher the level of environmental and social attention declared by customers, the higher their willingness to pay premiums for hotels' green initiatives (Lita, et al., 2014). The results of this research can be important to luxury hotel management to formulate environmental and social practices (according to customers' perceptions) that can lead to the customers' satisfactions and environment's needs.

Literature review

Environmental and social Practices

It is very much required to focus on environment friendly products (Monika, 2017). Tourist establishments are considering environmental and social practices as a key source of strategic change (Shaikh, 2011). Environmental practices have become increasingly pertinent. There is a demand for businesses to take accountability for what they are engaging to declining environmental condition (Mensah, 2007). Environmental practices include both technical and organizational actions aimed at decrease the environmental negative impact caused by firms processes (Salzman, 2000). The long term planning of environment management actions set the environmental strategy of a corporation, this strategy may vary relying on the industry, the attributes of each organization and its effect on the environment, the significance of the natural environment has been generally addressed in the context of services industry and particularly in the case of the hotel industry (Wahba, 2008). Furthermore, Environmental practices are still far from being universally fostered. This is due to some reasons, one of them being the fact that the environmental practices are still largely perceived as an extra load (in terms of cost increase or revenue loss), and the other reason being related to the national specifics in terms of political, cultural and economic differences (Mensah, 2007). There are several environmental practices that can be utilized when business wants to shift to a green behavior. Business should participate at least in one of "4Rs" – reduction, reuse, recycling, and recovery (Bohdanowicz, 2005). Every "Rs" can be accomplished through various pursuits, some of which might serve the purpose of more than one "R". A typical example of the first type of practice is the decrease of energy consuming, example by using energy-efficient compact fluorescents bulbs or merely by turning off electronic appliances when they are not in use (Bird, 2007). Green environmental practices can be divided into the four domains (a) water conservation, (b) energy efficiency, (c) recycling,

and (d) clean air (Bohdanowicz, 2005). The green environment is increasingly being viewed as a pillar of corporate social responsibility (CSR). Research on CSR and environmental sustainability in the management literature is converging because of shared environmental, economic, and social attention (Montiel, 2008). There is a deficiency of awareness and communication of environmental practices amongst customers and the industries' executives. Very little is recognized about the expectations, attitudes, and perceptions of these individuals regarding the need for environmental sustainability (Ricaurte, 2012). Ricaurte (2012) agreed with Dickson (2010) that spreading the practices and achievements to customers and establishing awareness to broader stakeholders are the crucial concepts to increase the standardization of environmental sustainability in the industries. There are various advantages that environmental practices can bring to hotels, such as appearing attractive to customers, creating a positive reputation, being cost-effective and also delivering positive public relations through marketing. Environmental practices are still not mainstream, where only a few of the hotels have made sustainability a part of their business routine and goals, and each is at a different level of practice (bader, 2005).

Customer Perception

In general perception is a process that begins with customer exposure and attention to marketing stimuli and ends with customer interpretation (Mohsin and Lockyer, 2010). Perception is defined as the process by which individuals select, streamline and transpose information to form a meaningful picture of the world (Verma and Chandra, 2016). Customers' perceptions can impact the decision making process of each one. Perceptions clarify the formation of an individual situation of mental awareness that is influenced by internal and external environmental stimuli such as economic, social and cultural influences (Mahapatra, 2013). People are used to perceive information through five senses: sight, hearing, smell, touch, and taste (Birinci, et al., 2017)

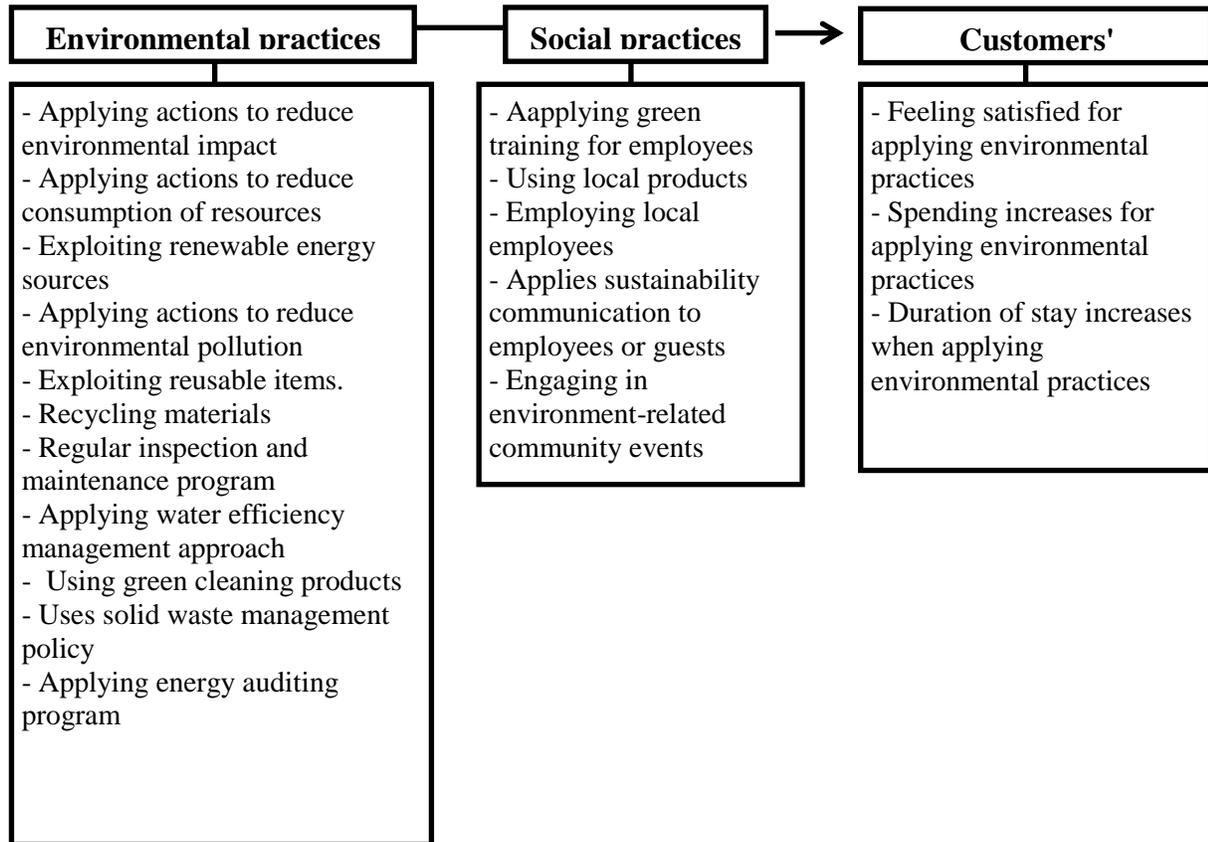
Customer Perception of Environmental Practices

There is increasing attention amongst the customers all over the world for protection of the environment (Pillai and Junare, 2016). Customers are becoming more interested in the environment. This concern may lead to a higher level of environmental awareness (Sachdev, 2011). Attitudes towards environmental practices are immediately related with a person's self concept (Blackwell et al., 2006 and Shaikh, 2011). Customers' environmental awareness and their tendency to preserve environment have been found to be significantly high (Shaikh, 2011). Many customers will select products that do not spoil the environment over less environmentally friendly products, even if they cost more (Pathak, 2017)

Study conceptual diagram

The researcher suggested the following conceptual diagram:

Figure 1: The study conceptual diagram



Methodology

With the aim of analyzing the hotels' environmental practices from the point of customers view in the Egyptian luxury hotels, a questionnaire was carried out covering sample of luxury hotel guests (4 and 5 star hotels) at Cairo, Sharm El Sheikh and Hurghada cities as vital areas where the big presence of luxury hotels in Egypt (Egypt hotels guide, 2016) to understand their perceptions of applying environmental practices at these hotels. Questionnaire was divided into a group of key variables that were measured on a five-dimensional Likert scale to determine the attitude of the respondents about the study variables. The questionnaire adopted items from different studies (Fernandez *et. al.*, 2010, Mohsin and Lockyer, 2010 and Dagher *et. al.*, 2015) and developed questions to fit the purpose of the study. For content validity the survey was piloted on a sample of 60 luxury hotels' guests (25 guests at Cairo hotels, 20 guests at Sharm El Sheikh hotels and 15 guests at Hurghada hotels). Then the questionnaires were modified according to respondents' comments. Data collected from a pilot study have been tabulated and analyzed using SPSS 21 statistical package as follow:

Table 1: analyzing of pilot study data

σ^2	Z	e	Levene's Statistic	Levene's Sig.
0.226	1.96	0.05	4.8	0.09

Table (1) show that Levene's coefficient is not significant Sig=0.09, Levene's test is used to assess the homogeneity for a variable calculated for research samples. If the resulting p-value of

Levene's test is more than some significance level (the researcher used 0.05 significance level) the obtained equal variances in samples are likely to have occurred based on random sampling from a population with equal variances (Nodstokke and Zumbo, 2010). The researcher used Cochran's formula of sample size to calculate the research sample size as follow (Shkeeb, p., 2014):

$$n = \frac{Z^2 \sigma^2}{e^2}$$

Where:

σ^2 : Variance of community Z : Standard degree e : Maximum allowed error

From the above formula and table (1) the researcher calculated a suitable sample size for this research, where the maximum allowed error (e) was 0.05, this value is convenient for discrete data (Shkeeb, p., 2014), standard degree (Z) was 1.96 and the variance of the sample (σ^2) was 0.13. Applying these values to the Cochran's formula reveals that the appropriate sample size for this research is 347 participants. A total of 380 questionnaire forms were distributed to customers, only 368 customers positively shared the questionnaire, only 355 questionnaires were valid and complete as follow:

Table 2: The sample of the study

Region	Grade		Total hotels' customers
	5 star hotels' customers	4 star hotels' customers	
Cairo hotels' customers	70	50	120
Sharm El Sheikh hotels' customers	60	60	120
Hurgada hotels' customers	70	45	115
Total	200	155	355

The gathered data was checked, coded, entered into SPSS 21 statistical package for analysis

Validity and Reliability

.For structure validity of the questionnaire, factor analysis test was used. For reliability of questionnaire statements, Cronbach's alpha coefficient was calculated, and exceeded 0.7 (0.76) for all items; this means that all items are valid (Henson, 2001).

Normality of data distribution

Normally distributed data is needed to use a number of statistical tools, such as control charts analysis, t-tests and the analysis of variance (ANOVA). The researcher used Kolmogrov-Smirnov test to test the normality of distribution which is a prerequisite for many statistical tests (Ghasemi and Zahediasl, 2012), results were presented in the following table:

Table 3: Normality of data distribution

Variables	Kolmogrov-Smirnov		
	Statistic	df	Sig.
Environmental practices	0.083	355	0.000
Social practices	0.112	355	0.000
Customer satisfaction	0.103	355	0.000

The above table pointed that the distribution of data for all three variables is not normally distributed as p value is less than 0.05, so the data collected from the sample is non-normal (Ghasemi and Zehedias, 2012). In this case the researcher used non-parametric tests to analyze collected data such as chi-square, Mann-whitny and kruskal-wallis tests to analyze the validity of the hypothesis of the research

Hypotheses

- 1- There are no statistical significant differences between research regions with regard to customers' perceptions about luxury hotels' environmental practices.
- 2- There is no statistical significant correlation between environmental practices at luxury hotels and customer satisfaction.
- 3- There are no statistical significant differences between luxury hotel grades with regard to applying environmental practices.
- 4- There is no statistical significant correlation between applying environmental practices and applying social practices at luxury hotels.

Results

Variables analysis

Environmental practices

The purpose of this variable was to measure the customers' perceptions about the environmental practices applied at Egyptian luxury hotels. The collected data is illustrated in table (4):

Table 4: Factor analysis for customers' perceptions about the environmental practices applied at Egyptian luxury hotels

Statements	Loadings
Hotel takes actions to reduce environmental impact	0.78
Hotel takes actions to reduce consumption of resources	0.62
Hotel exploits renewable energy sources	0.64
Hotel takes actions to reduce environmental pollution	0.4
Hotel exploits reusable items.	0.61
Hotel takes actions to recycle materials (glass, paper, metal, cardboard and plastics)	0.65
Hotel applies regular inspection and maintenance program	0.61
Hotel applies water efficiency management approach	0.6
Hotel uses green cleaning products	0.46
Hotel uses solid waste management policy	0.7
hotel applies energy auditing program	0.68
Sums of squared loadings	0.61.3

Factor analysis shown in previous table attempted to identify key variables or factors that explain the pattern of correlations within a set of observed variables. Statistical loading should not be less than 0.6 (Bartholomew, *et al.*, 2011 and pearce, 2013). Factor analysis showed that there were two variables did not exceed the target limit of loading, so the researcher deleted them, these variables were "Hotel takes actions to reduce environmental pollution" and "Hotel uses green cleaning products" with loading values 0.4 and 0.46 respectively.

Table 5: Statistics for the customers' perceptions about the environmental practices applied at Egyptian luxury hotels

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Hotel takes actions to reduce environmental impact	4	140	85	85	41
Hotel takes actions to reduce consumption of resources	7	79	110	122	37
Hotel exploits renewable energy sources	1	50	116	132	56
Hotel exploits reusable items.	6	76	86	142	45
Hotel takes actions to recycle materials (glass, paper, metal, cardboard and plastics)	28	27	90	124	66
Hotel applies regular inspection and maintenance program	103	114	89	35	14
Hotel applies water efficiency management approach	7	23	52	123	150
Hotel uses solid waste management policy	14	43	116	100	82
Hotel applies Energy auditing program	8	30	107	120	90

Table (5) mentioned that the most effective variables are used to assess the environmental practices at Egyptian luxury hotels were arranged as "Hotel applies water efficiency management approach" at 273 respondents at the rate of 78%, followed by "Hotel exploits renewable energy sources" at 188 respondents at the rate of 53%. The less effective variable was "Hotel applies regular inspection and maintenance program", where the frequency level was 49 respondents at the rate of 14%.

Social practices

Table 6: Factor analysis for customers' perceptions about the social practices applied at Egyptian luxury hotels

Statements	Loadings
Hotel applies Green training for employees	0.63
Hotel uses local products	0.42
Hotel employs local employees to support local economy	0.8
Hotel applies sustainability communication to employees or guests	0.73
Hotel engages customers in environment-related community events	0.74

Factor analysis showed that there was one variable did not exceed the target limit of loading, so the researcher deleted it, this variables was "Hotel uses local products" with loading value 0.42, so the researcher deleted it.

Table 7: Statistics for the customers' perceptions about the social practices applied at Egyptian luxury hotels

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Hotel applies green training for employees	7	74	116	94	64
Hotel employs local employees to support local economy	3	18	127	116	91
Hotel applies sustainability	3	22	106	119	105

communication to employees or guests					
Hotel engages in environment-related community events	12	60	119	94	70

Table (7) mentioned that the most effective variables are used to assess the social practices at Egyptian luxury hotels were arranged as “Hotel applies sustainability communication to employees or guests” at number of 224 respondents approved this variable at the rate of 63%, followed by " Hotel employs local employees to support local economy " at number of 207 respondents approved this variable at the rate of 53%. The less effective variable was "Hotel applies green training for employees" at number of 158 respondents approved this variable at the rate of 44.5%. This result represents the extreme importance of social practices from the customer's point of view.

Customer satisfaction

Table 8: Factor analysis for customers' satisfaction about the environmental practices applied at Egyptian luxury hotels

Statements	Loadings
I feel satisfied for applying environmental practices at hotel	0.73
My spending increases for applying environmental practices	0.7
Duration of my stay increases when applying environmental practices	0.71
Sums of squared loadings	0.713

Previous table indicated that all of the variables exceeded the target limit of loading (0.6) and loaded on one factor explained 0.71% of the variation in the primary variable.

Table 9: Statistics for the customers' satisfaction about the environmental practices applied at Egyptian luxury hotels

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I feel satisfied for applying environmental practices at hotel	11	56	108	124	56
My spending increases for applying environmental practices	1	17	53	164	120
Duration of my stay increases when applying environmental practices	46	—	80	149	80

Table (9) indicated that the most effective variable is used to assess the customer's satisfaction about the environmental practices applied at Egyptian luxury hotels was " My spending increases for applying environmental practices” at number of 283 respondents approved this variable at the rate of 80%, followed by " Duration of my stay increases when applying environmental practices " at number of 229 respondents approved this variable at the rate of 64.5%. The less effective variable was "I feel satisfied for applying environmental practices at hotel" at the rate of 50.7%.

Test of hypothesis

To test the first hypothesis of the study, kruskal-wallis test was used, kruskal-wallis test used when researcher has one ranked variable and one nominal variable, it tests whether the mean ranks are the same in all the groups, it also used when measurements variable does not meet the normality (McDonald, J, 2014). The results of kruskal-wallis test showed as follow:

Table 10: statistical significant differences between three regions of the research with regard to customers' perceptions about hotels' environmental practices

Variabl	Region	No. of customers	Mean Rank	Chi-Square	Sig.
Environmental preactices	Cairo	120	238	68.1	0.000
	Sharm ElShiekh	120	133		
	Hurghada	115	160		

The null hypothesis of the Kruscal-Wallis test is that the mean ranks of the groups are the same (McDonald, J, 2014). From the previous table it obvious that sig. value is (0.000) that means that there are significant differences between three regions of the research with regard to customers' perceptions about hotels' environmental practices. The results of Mann-Whitney tests indicated that there are statistical significant differences between each pair of three groups of regions in regard to customers' perceptions about hotels' environmental practices. This result coincided that the first hypothesis of the study is invalid. That means that hotels' environmental practices not applied at a systematic basis at Egyptian luxury hotels.

To test the second hypotheses of the study, chi-square test was used, chi-square test is used to determine whether there is a significant association between the expected frequencies and the observed frequencies in one or more categories (West, 2008). The results of chi-square test showed as follow:

Table 11: statistical significant correlation between environmental practices at hotels and customer satisfaction

Variable	Pearson Chi-Square	Df.	Sig.
Environmental practices Customer satisfaction	863	288	0.071

Table (11) indicated that Chi-Square value is 863 with Sig. value (0.071), this result meant that there is no statistical significant correlation between environmental practices at luxury hotels and customer satisfaction. This result coincided that the second hypothesis of the study is valid and lead to that environmental practices applied at Egyptian luxury hotels do not meet the customers' needs.

To test the third hypotheses of the study, Mann-Whitney test was used, Mann-Whitney test is used to compare two independent groups that do not require normally distributed samples (Nashar, 2008). The results of Mann-Whitney test showed as follow:

Table 12: Statistical significant differences between hotel grades with regard to applying environmental practices

Variabl	Grade	Mean Rank	Mann-Whitney	Sig.
Environmental preactices	5 star	364	56508	0.000
	4 star	338		

The previous table showed that the sig. value is (0.000) that means that there are significant differences between hotel grades with regard to applying environmental practices, these differences favor 5 star hotels. This result coincided that the third hypothesis of the study is invalid.

To test the fourth hypotheses of the study, chi-square test was used. The results of chi-square test showed as follow:

Table 13: statistical significant correlation between environmental practices at hotels and applying social practices at luxury hotels

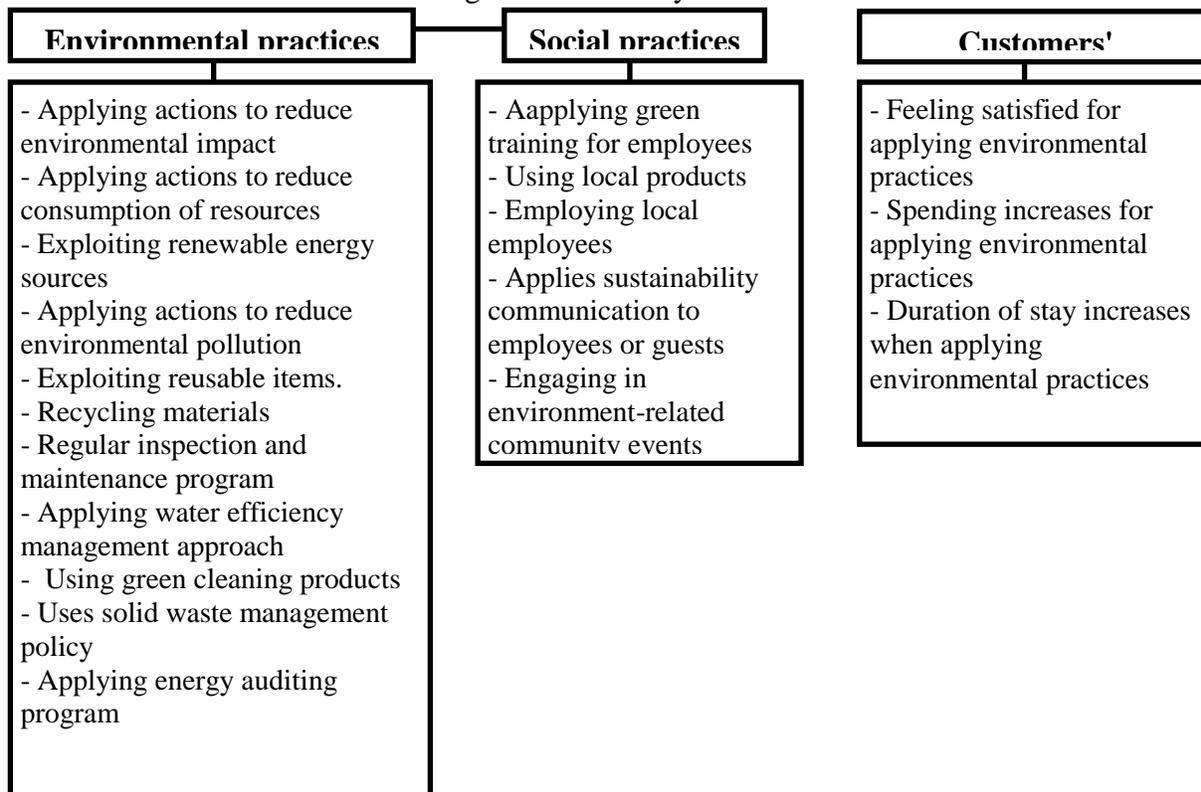
Variables	Pearson Chi-Square	Df.	Sig.
Environmental practices Social practices	896	336	0.000

Table (13) indicated that Chi-Square value is 896 with Sig. value (0.000), this result meant that there is statistical significant correlation between environmental practices and social practices at luxury hotels. This result coincided that the fourth hypothesis of the study is invalid; moreover, this result emphasizes the importance of social practices to complement the environmental role of Egyptian luxury hotels.

Study Model

From the previous results it obvious that there is no statistical significant correlation between both environmental practices and social practices at Egyptian luxury hotels and customer satisfaction. From this result the researcher modified the conceptual diagram to be as follow:

Figure 2: The study model



It's obvious that there is a gap between both environmental practices and social practices at luxury hotels and customer satisfaction. This means that the environmental and social practices that occur in hotels do not meet the needs of customers, and therefore the need to change the environmental policies in the hotels to meet the needs of guests

Conclusion

This study aims to understand the perception of customers towards environmental and social practices at luxury Egyptian hotels. A questionnaire was carried out covering sample of luxury

hotel guests (4 and 5 star hotels) at Cairo, Sharm El Sheikh and Hurghada cities. For content validity the survey was piloted on a sample of 65 guests (25 guests at Cairo, 20 guests at Sharm El Sheikh and 15 guests at Hurghada). Then the questionnaires were modified according to respondents' comments. Data collected from a pilot study have been tabulated and analyzed using SPSS 21 statistical package. For structure validity of the questionnaire, factor analysis test was used. For reliability of questionnaire statement, Cronbach's alpha coefficient was calculated. The researcher used Kolmogorov-Smirnov test to test the normality of distribution. Distribution of data for all key variables was not normally distributed as p value was less than 0.05, so the data collected from the sample was non-normal, so the researcher used non-parametric tests to analyze collected data such as chi-square, Mann-Whitney and Kruskal-Wallis tests to analyze the validity of the hypothesis of the research. The main results of the study were, there are significant differences between three regions of the research with regard to customers' perceptions about hotels' environmental practices, there is no statistical significant correlation between environmental practices at luxury hotels and customer satisfaction, there are significant differences between hotel grades with regard to applying environmental practices and there is statistical significant correlation between environmental practices and social practices at luxury hotels.

Research Limitations

The present study can not claim to be entirely conclusive because it is limited to the size of a sample of just three tourist cities of Egypt and only included sample of luxury hotels. This study was conducted during the period from November 2017 to January 2018.

Future Research and Implications

This research did not focus on the practices that harm the environment and the role of hotel management to deal with them. For further researches, it is suggested to conduct an analytical study of bad environmental practices, especially in floating hotels and test the significance framework to deal with such practices.

Recommendations

- Luxury hotels managements should apply environmental and social practices and develop plans for their hotels in order to increase performance, efficiency and create value as an input to all inclusive management approach
- Implementing of the proposed model as a tool to verify the correlation between environmental and social practices and customers satisfaction.
- Luxury hotels managements have to emphasize the social aspects that are complementary to successful environmental management
- Luxury hotels managements should hold environmental and social training programs for employees to raise their abilities to apply environmental and social practices
- Luxury hotels managements have to follow up the international institutions working in the environmental field to provide all what is new in this sector
- Luxury hotels managements should continue follow-up of customers' impressions and develop of performance to continuously gain customers' satisfaction

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