



**SUSTAINABLE PRACTICES IN HOTEL INDUSTRY: AN
EMPIRICAL STUDY OF UDAIPUR**

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ABSTRACT

With the growth of hotel industry the consumption of natural resources is also increased. Hoteliers know it very well that the sustainability of their operations heavily depends on the eco-friendly practices. The waste generation from hotels have negative impact on environment and to reduce the negative impact on the environment, the hotel sector worldwide has embarked on a course of implementing environmental management practices or a much formal tool called environmental management systems. The study is aimed to identify the status of eco-friendly practices implemented by the luxury hotels of Udaipur. To serve the purpose 12 luxury hotels were selected and 3 employees from each hotel were interviewed. The analysis highlighted that hotel employees are aware about the eco-friendly practices but still all these practices have not been adopted. The paper also highlighted the problems faced by hoteliers in the implementation of sustainable practices.

Keywords: Sustainability, eco-friendly practices, Hotel



INTRODUCTION

A hotel stands for comfort and a high stand of living. This could mean a high per capita consumption of energy, water and other resource, as well as creating a large amount of waste and pollution due to the necessity of having a high standard of hygiene and a high turnover of guests. The hotel industry significantly contributes towards the environment and there is no exemption to it and therefore its contributions and responsibilities towards the environment should not be ignored. The hotel industry is comprised of various smaller operations and departments which can have a significant effect on the environment because of the resources they consume. Implementing and practicing environmental management practices is essential for all operations of a hotel, as this would result and lead to a greater sustainable development of the industry.

The green movement has been spreading in the hospitality industry, with the rise of environmentally friendly practices. Hotels are now using better lighting and recyclable materials, having programs for recycling and encouraging guests to reuse towels, instead of having them changed every day. Many hotels are striving for L.E.E.D. certification or comparable certifications that designate an environmental friendly status. Hotels are implementing these programs based on public opinion, but are consumers utilizing these programs, or just being politically correct when stating they are a factor when choosing hotels. Thus, it is necessary to adopt a scientific approach to figure out the factors that will make it easy to offer better eco-friendly services to the tourist visiting hotels.

LITERATURE REVIEW

Hsiao, T. Y., Chuang, C. M., & Huang, L. (2018) aimed to “examine a win-win model for hotel competitive advantage and appeal to environmental protection demands. Research methods include two-phase quantitative surveys. From the first survey with 205 and the second with 281 directors of star-rated hotels in Taiwan, this study adopted PLS to investigate green activities and verify the relationships between determinants (i.e., external institutional pressures and internal slack resources) affecting green activity implementation and performances (i.e., environmental



performance and competitive advantage). The results indicated that determinants have significant positive effects on hotel implementation of green activities and that, in turn, have significant positive effects on performances. This study also found that green activities have a mediating effect on the relationships between determinants and performances. Moreover, environmental performance has a mediating effect on the relationship between green activities and competitive advantage. Finally, this study proposed a three-phase strategic procedure for implementing suitable green activities in star hotels.”

According to **Horng, J. S., Liu, C. H., Chou, S. F., Tsai, C. Y., & Chung, Y. C. (2017)** Sustainable innovation is a critical attribute in modern hotel management, as is widely recognized by experts and hotel managers alike. This paper develops and tests a new integrated theoretical model of associations among innovation diffusion, environmental marketing strategy, sustainability innovations, and the organizational environment. This research also considers the mediating effect of environmental marketing strategy and the moderating role of the organizational environment. The results of a study that included 367 managers of eco-friendly hotels in Taiwan provide support for this model across various dimensions of hotels’ sustainable innovation. The present study found relationships among innovation diffusion, environmental marketing strategy and sustainability innovations, and a mediating effect of environmental marketing strategy. The results also confirmed that the organizational environment moderates the relationship between innovation diffusion and environmental marketing strategy. That is, a supportive organizational environment will enhance the effect of innovation diffusion on environmental marketing strategy.”

Burns Smith A. and Choy V. (2015) focused on “sustainability practice in the lodging industry, based on 100 resort properties in united states the common green practices which they have found is to use common green practices like water conservation and linen re-use , even a survey of 120000 hotels customers fixtures and lien-reuse programme. Indeed, the particular study reveals that everybody gets interested in the occasional offers like additional loyalty points for those who took parts in eco-friendly events given by hotels. Despite the fact that the connection between eco-friendly events or programs and improvement in consumers' loyalty



does not sound strong in comparison with standard points of focus like services and facilities, rooms, and F & B standards. Hotels are being anticipated that they would keep up sustainability initiatives as the year-round feature of their business. In the meantime, it is observed that ecological manageability features don't lessen visitors' interest and their point of satisfaction remain intact. As a result, the choice with respect to which eco-friendly program suppose to be executed depends on its cost-effectiveness.”

P. Reynolds (2013) concluded that “Hotels consume a huge amount of resources in the way of energy and water, and many are built in fragile environments. Despite the strong interest in environmental sustainability, hotel companies have an uneasy relationship with trying to ensure green credentials while pleasing their customers and maintaining competitive advantage. How do hotel companies devise and manage their strategies in their relationship with the natural environment? What are the factors that influence their choice? This paper identifies four important antecedents to corporate environmentalism and examines them within political/economic framework bounded by stakeholder theory. The emergence of environmental issues and the implications for strategy are debated and the theoretical and practical implications of integrating environmental issues into corporate strategies are discussed.”

Chan W. W. (2009) concluded that “Implementation of environmental management systems (EMS) in hotels is gaining popularity world-wide. ISO 14001, which is the only certifying document in the ISO 14000 series, provides guidelines to set up an EMS. However, there is a paucity of information about the actual environmental measures implemented in ISO 14001 certified hotels. Therefore, the purpose of this paper is to identify and generalize the environmental measures undertaken by studied hotels and to evaluate the performance of these environmental measures.”

Amy Walker (2007) concluded that “the green movement has been spreading in the hospitality industry, with the rise of environmentally friendly practices. Hotels are now using better lighting and recyclable materials, having programs for recycling and encouraging guests to reuse towels, instead of having them changed every day. Many hotels are striving for L.E.E.D. certification or



comparable certifications that designate an environmental friendly status. Hotels are implementing these programs based on public opinion, but are consumers utilizing these programs, or just being politically correct when stating they are a factor when choosing hotels.”

OBJECTIVES

The proposed study is done to fulfill following objectives:-

1. To study the hotel employees awareness about sustainable practices
2. To identify the eco friendly practices adopted by the luxury hotels of Udaipur for the sustainability of operations
3. To study the challenges faced by the hotels in the implementation of sustainable practices.

RESEARCH METHODOLOGY

(a) Research Design: - To serve the purpose of research paper descriptive research design was used. Primary data was collected with the help of close ended questionnaire.

(b) Sample Design: - out of the available various luxury hotels, the study covered the 12 luxury hotels operating in Udaipur. 3 employees from each hotel was chosen purposively. The list of hotels covered is as follow:-

Table 1: List of Hotels Covered

S. No.	Name of Hotel	S. No.	Name of Hotel
1	The Lalit Laxmi Vilas Palace Hotel	7	The Udai Vilas Hotel
2	Chunda palace Hotel	8	Lack Palace Hotel
3	The Leela Palace Hotel	9	Trident Hotel
4	Inder Residency	10	Ramada Udaipur
5	Radisson Blue Hotel	11	Shiv Nivas Palace
6	Fateh Prakash Palace	12	Hotel Lakend



(c) **Analysis:** - The data collected was analyzed with the help of Arithmetic Mean, Coefficient of Variation and ANOVA.

ANALYSIS & INTERPRETATION

A. Work Experience of Respondents

Table 2 is presenting the respondents work experience of hotel industry. It can be observed in a sample of study majority of respondents (N=19, Percentage=52.8) were having the work experience of 3 to 6 years followed by 27.8% respondents (N=10) who were having the experience of more than 6 years. Rests of the respondents (N=7, Percentage=19.4) were working with the hotel from last 1 to 3 years.

Table 2: Work Experience of Respondents

Experience	N	Percentage
1 to 3 Years	7	19.4
3 to 6 Years	19	52.8
More than 6 Years	10	27.8
Total	36	100

B. Hotel Employee Awareness about Sustainable Practices

The respondents were presented with the list of general eco-friendly practices of hotels for which they indicated their level of awareness on 3-point likert scale. With a midpoint of 2 on the Likert scale, respondents have indicated that they are aware of all the eco-friendly practices. Liquid soap instead of soap cake has received highest awareness score, followed by Solar lighting in gardens and open area, Water saving taps & W.C. in bathrooms. Co-efficient of variation (C.V) is an important measure to assess the relative variation in the variable. Its value was found to be the least one in case of Occupancy/ motion sensors (0.23) while highest one in case of Bamboo & cane furniture (0.41). It means that responses have highest concentration across the mean value in case of Occupancy/ motion sensors.

Table 3: Hotel Employee Awareness about Sustainable Practices

Eco-friendly Practices	Fully Aware	Somewhat Aware	Not at All Aware	Total (N)	Mean	S.D.	C.V.
Water saving taps & W.C. in bathrooms	33	2	1	36	2.89	0.79	0.27
CFL , LED & other energy saving appliances	31	3	2	36	2.81	0.95	0.34
Solar lighting in gardens and open area	32	4	0	36	2.89	1.02	0.35
Occupancy/ motion sensors that switch on when guest is inside the room	33	1	2	36	2.86	0.65	0.23
Organic, soap and shampoo	26	7	3	36	2.64	0.91	0.34
100% cotton bed sheets, tablecloth, soft furnishings, curtains etc	30	4	2	36	2.78	0.75	0.27
Bamboo & cane furniture	21	11	4	36	2.47	1.01	0.41
Recycled paper bags, envelopes, stationery	24	10	2	36	2.61	1.04	0.40
Liquid soap instead of soap cake	36	0	0	36	3.00	0.96	0.32
Noiseless diesel generator	29	2	5	36	2.67	0.92	0.35

As per the results presented in table 4 it can be concluded that maximum number of respondents (N=27, Percentage=75) are fully aware of the sustainable practices of hotels. 19.4% respondents (N=7) were in somewhat aware category while 5.6% respondents (N=2) were not at all aware about eco-friendly practices of hotels. As per the mean score (25.29) it can be concluded that respondents are extremely about eco-friendly practices.

Table 4: Overall Awareness of Hotel Staff about Sustainable Practices in Hotel Industry

Awareness Level	N	Percentage
Not at All Aware	2	5.6
Somewhat Aware	7	19.4
Fully Aware	27	75.0
Total	36	100
Mean Score	25.29	



S.D.	2.15
Awareness Level	Extremely Aware

It is clear from the data shown in table 5 that respondents who have 1 to 3 years experience of hotel industry are somewhat aware about eco-friendly practices while rest all the respondents were fully aware about the eco-friendly practices.

Table 5: Staff Awareness about Eco-friendly Practices with respect to their Experience

Experience	Mean	S.D	Awareness Level
1 to 3 Years	22.21	1.08	Somewhat Aware
3 to 6 Years	25.01	2.12	Fully Aware
More than 6 Years	26.18	1.95	Fully Aware

To measure significant difference in awareness level of respondents with respect to their Experience ANOVA test was applied and results received are presented in table 6. It can be seen that at 5% level of significance the test statistic is significant which implies the impact of work experience on the awareness level of respondents.

Table 6: ANOVA results to measure significant difference in awareness level of respondents with respect to their Experience

Source of Variation	Sum of Squares	Degree of Freedom	Mean Sum of Squares	F-Ratio	Significance
Between Samples	78.29	2	39.145	4.87043	0.037
Within Samples	265.23	33	8.0372727		
Total	343.52	35			

Level of Significance = 5%

C. Eco-Friendly Practices adopted by Hotels

One of the objective of the research was to identify that whether the hotels (N=12) considered for study have implemented the sustainable practices or not. It was found that three practices



have been adopted by all the hotels (N=12, Percentage=100) i.e. CFL , LED & other energy saving appliances, 100% cotton bed sheets, tablecloth, soft furnishings, curtains etc and Liquid soap instead of soap cake. Majority of hotels (N=10, Percentage=83.33) are using Water saving taps & W.C. in bathrooms as well as Organic, soap and shampoo followed by 75% hotels (N=9) who are using Occupancy/ motion sensors and Noiseless diesel generator. Half of the hotels (N=6, Percentage=50) have access to Solar lighting in gardens and open area and Recycled paper bags, envelops, stationery whereas Bamboo & cane furniture are used by only 5 hotels (Percentage=41.67).

Table 7: Eco-Friendly Practices adopted by Hotels

Eco friendly practices	Implementation (N=12)			
	Yes		No	
	N	Percentage	N	Percentage
Water saving taps & W.C. in bathrooms	10	83.33	2	16.67
CFL , LED & other energy saving appliances	12	100.00	0	0.00
Solar lighting in gardens and open area	6	50.00	6	50.00
Occupancy/ motion sensors that switch on when guest is inside the room	9	75.00	3	25.00
Organic, soap and shampoo	10	83.33	2	16.67
100% cotton bed sheets, tablecloth, soft furnishings, curtains etc	12	100.00	0	0.00
Bamboo & cane furniture	5	41.67	7	58.33
Recycled paper bags, envelops, stationery	6	50.00	6	50.00
Liquid soap instead of soap cake	12	100.00	0	0.00
Noiseless diesel generator	9	75.00	3	25.00

D. Challenges faced by Hoteliers in Implementation of Sustainable practices

At last respondents were asked to problems faced by them in the implementation of eco-friendly practices and it was found that high cost (N=29, Percentage=80.56) is the major hurdle in the implementation of sustainable practices followed by Non availability of



appropriate infrastructure (N=24, Percentage=66.67) and Non Cooperative government policy (N=22, Percentage=61.11). 52.78% respondents (N=19) said that they faced problem of Non availability of eco friendly practices while 19.44% employees (N=7) indicated the problem of lack of knowledge of sustainable practices.

Table 8: Challenges faced by Hoteliers in Implementation of Sustainable practices

Challenges	N	Percentage
High Cost	29	80.56
Lack of Knowledge	7	19.44
Non availability of eco friendly practices	19	52.78
Non Cooperative government policy	22	61.11
Non availability of appropriate infrastructure	24	66.67

CONCLUSION

From this study following conclusions can be drawn:-

1. Employees of luxury hotels are aware about the eco-friendly practices of hotel industry and there is significant difference in awareness level of respondents with respect to their Experience.
2. The major sustainable practices adopted by hotels are CFL , LED & other energy saving appliances, 100% cotton bed sheets, tablecloth, soft furnishings, curtains etc and Liquid soap instead of soap cake while Bamboo & cane furniture is used by only few of the luxury hotels.
3. High cost of the sustainable practices is the major hurdle in the implementation of these practices in hotels.

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COMMONWEALTH JOURNAL OF COMMERCE & MANAGEMENT RESEARCH

Vol.5, Issue 11 (November 2018)

ISSN: 2393-851X

Impact Factor: 4.382

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