

## Environmental Stewardship in the Rajasthan Hotel Industry

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### Abstract

Environmental issues are gaining importance in the tourism industry. The concept of sustainable tourism has created significant pressure on the hotel industry. Environmental friendliness is now central to the notion of resource use and consumption in these establishments. This study investigates the influence of various efforts initiated by the government for establishing environmental concern in the hotels. The hotels in the desert ecosystem of Rajasthan were primarily targeted. The study reveals the primary areas of environmental concern are water management, solid waste management, energy management and biodiversity conservation. Although most of the factors needed to be considered in the inception and planning period of the hotel yet it was found that majority of the hotels have started taking initiatives for energy and water conservation. The survey has further indicated that environmental sustainability needs to be instilled in the behavioral aspect of the workforce and more demand needs to be created at the demand side of the chain.

**Keywords:** Environmental Factors, Sustainable Tourism, Desert Ecosystem, Behavioral Aspect

### Introduction

Incorporation of environmental factors in management has been promoted as an important component for survival in the present scenario. As a major sub-sector of the tourism industry, the hotel sector accounts for a significant amount of the overall resource consumption in the world's largest export industry, as well as for a substantial portion of the environmental impacts it generates (Gossling, 2002). For most hotels, the key sources of sustainable competitive advantages rely heavily on the ways of reducing; reusing and recycling nature resource (Anton et.al. 2004; Potoski and Prakash, 2005). The present study investigates the green practices followed in the Rajasthan hotel industry with particular reference to three major areas –water, energy and solid waste. The study explores the environmental management practices of these hotels in these three areas.

### Review of Literature

Few studies have focused on ecological initiatives within the hotel industry (IHEL, 1993; HI & RA et.al., 1995; SAtabler and Goodall, 1997; Kulseza, 1999; Howarth International and Smith Travel Research, 1999; Despretz, 2001; Genotet.al., 2001; APAT, 2002; Bohdanowicz, 2003; European Commission, 2003). Most of the above studies are

based on the investigation of environmental attitudes of hoteliers. Environmental impacts generated by a firm's products and services can generally be classified into two categories: "organizational or software" and "promotional or hardware" (Alvarez Gill, Burgos Jimenez & Cespsedes Lorente, 2001; Gonzalez-Benito & Gonzalez-Benito, 2006; Saha & Darnton, 2005). Specifically green management is the hospitality industries optimization of green practices to enhance performance by using various methods and techniques; it serves as a systematic way to acquire, organize and manage natural resources. (Wang, 2012). As green management is also taking on an important strategic role (Lau, 2011; Hu and Hsu, 2010), numerous hotels are expecting their green management to be performed effectively in order to leverage and transform green practice into competitive advantages.

### Research Methodology

The research that forms the basis of this study was conducted in Rajasthan, a state with desert ecosystem and with limited amount of water resources. We chose this area as tourism is growing fast and with a range of domestic and international chains upsurge in the area, competition is also growing fierce. At the time of primary research there were 17 five star hotels, 14 four star and 12 three star hotel

operating in the region (PMIS, Ministry of Tourism, Government of India).

### Sample and Data Collection

The target population was individual hotels in the study area. A pilot study identified the chief engineers in these hotels as the "Reality definers" (Fineman, 1997). Environmental management is considered as an additional responsibility in most of the hotels and not many took active interest in up taking activities associated with the environmental management plan of the hotel.

The survey instrument was tested with in depth interviews with the chief engineers in these hotels.

### Instrument Design

A standardized questionnaire was used for the above purpose (Dief and Font, 2010). The reliability and validity of the questionnaire has been proved in earlier studies. The questionnaire was divided into two parts. The first six questions related to environmental planning and organization in the hotel and the other six were related to environmental operations in the organization. A total of 38 filled questionnaires were valid and were used for the purpose of study. The questionnaires were self administered and the data was analyzed further.

Table 1: Frequency Distribution for Participant Hotels

Star Rating	Participant Hotels	Chain affiliation	Sample Frame
5 Star	15	Independent and Chain hotels	43%
4 Star	13	Independent and Chain hotels	16%
3 Star	10	Independent Hotels and Local chain hotels	38%

### Analysis

The mean values ranged from 2.6316 and 4.6316. The standard deviation also ranged between .48885 to .99679. All the values for standard deviation were less than one. The Pearson test for bivariate correlations reveals a number of meaningful relationships among these predictors. The analysis of data revealed that there was a high correlation between waste management and ecopurchase (.809) and between water treatment and waste management (.700). This suggests that a better supply cycle may result in less waste generation at the consumer end. Better use of resources can be brought about by making available eco friendly products to the consumers. They may result in reducing, reusing and recycling of various products used during the stay at the hotel. The association of recycling and purchasing items in particular with those of environmental planning can be explained by the fact that waste management and supplier's evaluation are two basic requirements for hotels EMS standards. Similar results were obtained by Dief and Font, 2010. A high correlation between

water treatment and waste management also suggest that better treatment and recycling of water also lessens up the liquid waste produced at the industry end. There was found to be a moderate correlation between water treatment and ecopurchase (.587). A moderate correlation was also observed between energy and environmental awareness (.473). An increased awareness among the customers to save and efficiently use electrical appliances may help in increasing the energy efficiency. This suggests that increased frequency of advertising may improve the efficiency of energy use by customers. An informed customer may then help in cutting down the costs on energy. A relatively low correlation was observed between ecopurchase and environmental audits (.093). Similarly a low correlation was also observed between environmental savings and environmental audits (.109). This suggests that even organizations with more environmental savings may or may not indulge in environmental audits. This then depends on a number of secondary factors as the chain affiliation, the size and type of customers the hotel is catering for, the independent hotels etc.

**Table 2**  
**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Env_Sav	38	4.00	5.00	4.5000	.50671
ENV_Audits	38	4.00	5.00	4.3684	.48885
Rewards	38	4.00	5.00	4.6316	.48885
ENV_Awa	38	2.00	4.00	2.9211	.99679
Designations	38	2.00	5.00	3.0789	.99679
Waste_Mgmt	38	2.00	4.00	2.6842	.84166
Eco_Purchase	38	2.00	4.00	2.6842	.84166
Energy	38	2.00	5.00	4.0789	.58732
Eco_Tech	38	2.00	4.00	3.4737	.86170
Water_Cons	38	2.00	4.00	2.8421	.94515
Linen_Reuse	38	2.00	4.00	3.1842	.89610
Water_Treat	38	2.00	4.00	2.6316	.85174
Valid N (listwise)	38				

**Table 3: Correlation Analysis**

	Env_Sav	ENV_Awa	Eco_Purchase	ENV_Audits	Waste_Mgmt	Energy	Water_Treat
<b>Env_Sav</b>	1						
<b>ENV_Awa</b>	.027	1					
<b>Eco_Purchase</b>	.253	.259	1				
<b>ENV_Audits</b>	.109	.327	.093	1			
<b>Waste_Mgmt</b>	.190	.324	.809	.169	1		
<b>Energy</b>	.045	.473	.325	.386	.325	1	
<b>Water_Treat</b>	.313	.379	.587	.184	.700	.330	1

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

**Conclusion**

The research contributes to the organizational greening literature by analyzing the operational and organizational practices involved in implementation of an environmental management plan in an organization particularly the hotel sector. The results support the influence of a well placed environmental management plan which not only bring down the cost but also helps sustain the corporate social responsibility vested with these hotels. It was also concluded that chain hotels have more ease in implementing these plans than the independent hotels on account of standardized services provided by these organizations. The data also suggest that there is still a gap between good intentions and actual behavior. Hoteliers need to be aware of the benefits of engaging in proecological solutions which can be incorporated for sustaining the resources on which they are highly dependent. The role of government and policy makers is also needed to be redefined for improving the framework in which these organizations operate.

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