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## **BARRIERS TO ENVIRONMENTAL MANAGEMENT IN HOTELS IN KWAZULU- NATAL, SOUTH AFRICA**

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### **Abstract**

*In the last two decades an increasing number of studies have focused on the impacts of tourism development on the environment aimed at the depletion of natural resources, the generation of waste and pollution and general environmental degradation. Consequently, the huge growth in the hotel industry has considerably affected the environment at a global level as the sector consumes large amounts of energy, water and non-durable products. Hotels are therefore now urged to engage in responsible and sustainable environmental management practices. Often hotel managers are keen to engage in responsible environmental practices but are unable to do so due to certain impediments. This article examines the barriers or challenges that are faced in adopting more sustainable and responsible environmental management practices in hotels in KwaZulu- Natal, South Africa.*

*In total, 142 hotels (including hotel chains as one entity) were identified in KwaZulu-Natal and a census approach was adopted, in that all 142 were approached to participate in the study. Sixty hotels responded. Data was collected through a web-based, online survey questionnaire. The findings reveal that hoteliers are faced with a number of barriers in the implementation of environmental management practices. These barriers include lack of knowledge and expertise, lack of resources to implement certain environmental management practices, lack of government assistance, lack of legislation and regulation and high costs.*

*Furthermore, a noteworthy finding is that a number of hotels in KwaZulu-Natal are unaware of the savings potential associated with environmental programmes, that is, the direct benefits to their establishments.*

**Keywords**

Environmental Management, Barriers, Hotels, Sustainable Tourism, Environmental Conservation

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**1. Introduction**

The tourism industry is regarded as being “resource-hungry” (Sharpley, 2009:22) as it consumes considerable amounts of natural resources, both in its development and operation phases (Knowles, Macmillan, Palmer, Grabowski & Hashimoto, 1999; Mensah, 2006; Lozano-Oyalo, Blancas, Gonzalez & Caballero, 2012; Rodriguez-Anton, Alonso-Almeida, Celemin & Rubio, 2012; Michailidou, Vlachokostas & Moussiopoulos, 2015). An integral part of the tourism industry is the accommodation sector and hotels form a major component of this sector. Due to its function, operating characteristics and services provided, the hotel sector leaves the most “visible and permanent footprint” on the environment and is often guilty of “environmental malpractice” (Weaver, 2006:84). Despite this, the ecological implications of hotels have long been ignored, and hotels are now faced with the pressure to give attention to environmental issues and policies at every phase of their business venture. This has prompted hotels to explore sustainable practices aimed at environmental management (Miao & Wei, 2012; Rogerson & Sims, 2012; Yusof & Jamaludin, 2013; Hoogendoorn, Grant & Fitchett, 2015).

Stevens, Batty, Lomghurst and Drew (2012) maintain that a company’s environmental management (EM) activities are a way of measuring its environmental performance and “maintaining natural capital” (Alonso & Ogle, 2010:819). Therefore “the more environmental protection measures undertaken by a company, the less will be the damage to the environment and the greater will be its environmental performance” (Burgos-Jimenez, Cano-Guillen, & Cespedes-Lorente, 2002:209). According to Stevens *et al.* (2012:206), EM in the past was in the form of “command and control regulations” which were based on broad principles introduced at the international level, and have become ratified through international treaties or conventions. A number of environmental regulations were criticized for being costly and inflexible. Levies and permits were also introduced to deal with environmental concerns but were found to be inadequate. Private instruments that run concurrently with existing legislations were thereafter considered more beneficial and this led to the

adoption of certified environmental management systems.

In the past decade, the operational aspects of hotels have been controlled by self-regulation environmental programs. In particular, the sector has implemented industry-driven performance standards, self-regulatory initiatives and voluntary management systems to improve environmental performance aimed at energy reduction, recycling, waste management, water management and social projects (Hsiao, Chuang, Kuo & Yu, 2014; Hoogendoorn *et al.*, 2015). Nevertheless, Knowles *et al.* (1999:262) maintain that the hotel sector “exhibits a gap between environmental good intention and action”. Often, a hotel a may be prohibited from, or encounter difficulties in, adopting environmental management initiatives due to a range of barriers that they may confront (Tari, Claver-Cortes, Pereira-Moliner, & Molina-Azorin, 2010; Park & Kim, 2014).

### **1.1 Barriers to Environmental Management in the Hotel Sector**

Lack of resources and high costs are cited as the most common barriers to EM in hotels (Chan, 2008; Hsiao, *et al.*, 2014; ). For environmental management (EM) to be successfully implemented and maintained, money, time and people as well as other costs need to be allocated and sustained on a continual basis (Kang, Stein, Heo & Lee, 2012). This can become a financial burden to hotels (Kang *et al.*, 2012) as many hoteliers believe that environmental measures are prohibitively expensive (Bohdanowicz, 2006). Research indicates that usually larger tourism firms have greater advantages and opportunities to implement and benefit from sustainability practices as they have greater access to financial and human resources (Chan, 2008; Kasim, 2009).

Lack of professional environmental knowledge is another barrier facing EM in hotels and this may subsequently result in some hotels experiencing difficulty in interpreting and implementing environmental management measures (Erdogan & Baris, 2007; Chan, 2008; Graci & Dodds, 2008; Tzschentke, Kirk & Lynch, 2008; Fraj, Matute & Melero, 2015). A study of EM practices in hotels in Ghana revealed that most managers perceived environmental management as “keeping their surrounding green and attractive with flowers and other ornamental plants” (Mensah, 2006:424). Erdogan and Tosun (2009) maintain that a low level of awareness and knowledge on environmental issues will inevitably reduce environmental performance in hotels.

Lack of governmental regulation that enforces environmental practice is also a key barrier to EM in hotels (Graci & Dodds, 2008; Michailidou *et al.*, 2015). Governments input is often described as being “indirect and at an arm’s length” (Bramwell & Lane, 2010:1). Although some regulatory bodies have developed EM guidelines, they have not strongly

enforced these due to “uncertainties concerning how such initiatives will be received by tourism suppliers and their clients” (Williams & Ponsford, 2009:3). Besides, governments are unwilling to burden tourism businesses with extra regulations as they believe this may preclude their willingness to generate tax revenues.

Hotels are often reluctant to adopt sustainable practices as they believe that there is insufficient consumer interest in environmentally-friendly products. Whilst consumers have the greatest power to change the hotel industry, there is often very little demand for sustainable products (Graci & Dodds, 2008; Michailidou *et al.*, 2015). Moreover, environmental degradation and climate change does not significantly influence travel purchase decisions (Anable, Lane & Kelay, 2006; Chan, 2008; Hsiao, *et al.*, 2014). Despite consumers being aware of environmental concerns and the need to act responsibly (Gao & Mattila, 2014; Sang Mi, *et al.*, 2015), they seem “unwilling to translate these concerns into meaningful personal actions by voluntarily changing their own consumption patterns” (McKercher, Prideaux, Cheung & Law, 2010:299).

Although there is evidently a widespread interest in EM in hotels, adoption of such measures has been slow due to various barriers that hotels encounter. Notwithstanding the increasing awareness and implementation of sustainability initiatives globally and in South Africa, there is a dearth of empirical research on the barriers facing the adoption of EM measures in the hotel sector. This study therefore sought to identify the key barriers to EM in star-graded hotels in KwaZulu-Natal (KZN), South Africa.

## **2. Methodology**

The study area is the province of KZN in South Africa. KZN offers an array of tourism accommodation establishments, ranging from basic to luxury which includes bed and breakfasts, guesthouses, hotels and self-catering accommodation. This study concentrated on all star-graded hotels in KZN and a total of 142 star graded hotels were targeted for the study. Sixty hotel managers responded to the study questionnaire. A quantitative and qualitative design approach was applied in the study. Data were elicited from hotel managers through web-based, self-completion questionnaires. Additionally, qualitative data were obtained through open-ended questions which were included in the questionnaire. The data collected from the survey questionnaires were edited, coded and processed using the Statistical Package for Social Scientists (SPSS) 23.0 for Windows. Due to the small sample size of the study, the Fishers Exact statistical test procedure was undertaken to calculate the probability value for the relationship between key variables in the study. A limitation of the study was time-constraints, which did not make it possible to obtain data from all types of

accommodations establishments, hence the researcher only focused on star-graded hotels.

### **3. Results**

The profile of hotels in the study was analysed according to hotel size, star grading, years in operation, key markets and ownership type. Hotels that responded to the study questionnaire varied in size and capacity. A large proportion of hotels (68%) had 1 to 50 rooms whilst 18% had 51 to 100 rooms, and 12% had 101 to 200 rooms. Hotels with more than 200 rooms constituted 2% of the study sample. In terms of star grading of the establishments, the largest proportion of hotels was 3 star hotels (45%) followed by 4 star hotels (33%). The majority of the hotels in the study (78%) were established facilities, having been in operation for more than a decade. In terms of the key market segments, the largest share of hotels (47%) were orientated towards the leisure market. A further 20% of hotels identified businesses as their key market, whilst 33% of hotels were orientated towards both a leisure and business market. Independent hotels constituted 70% of hotels whilst 30% of hotels belonged to a hotel chain or group. Hotel managers were asked to indicate the perceived impacts that their hotel has on the environment. According to Figure 1, hotel managers identified energy consumption (91.7%), water consumption (80%) and waste generation (66.1%) to be the key detrimental impacts of hotels on the environment. A small proportion of hotel managers mentioned habitat degradation (25%) and noise pollution (10%) to be environmental impacts of their hotels.

Table 1 presents the key barriers to environmental management as stated by hotel managers in the study. Lack of environmental regulation and legislation for hotels was cited as the dominant barrier to EM by the majority of hotel managers in the study (M: 4.08). This was followed by the lack of government assistance (M: 3.98), the lack of environmental knowledge and skills (M: 3.97), the lack of specialized staff (M: 3.92), the poor economic climate (M: 3.83), high costs associated with EM and the lack of promotion of EM (M: 3.80), no economic benefits associated with EM (M: 3.77) and the lack of consumer demand for environmentally-friendly hotels (M: 3.43).

**Table 1:** *Barriers to Environmental Management in Hotels (n=60, in %)*

<b>Barriers</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Mean</b>
Lack of promotion of EM	0.0	10.0	16.7	56.7	16.7	3.80
Lack of environmental knowledge and skills	0.0	6.7	13.3	56.7	23.3	3.97
Lack of specialized staff	0.0	8.3	8.3	66.7	16.7	3.92

Lack of environmental regulation and legislation	0.0	0.0	10.0	71.7	18.3	4.08
Poor economic climate	0.0	3.3	21.7	63.3	11.7	3.83
High costs associated with EM	0.0	8.3	23.3	48.3	20.0	3.80
Lack of government assistance	0.0	0.0	15.0	71.7	13.3	3.98
No economic benefits	0.0	5.0	26.7	55.0	13.3	3.77
No consumer demand	6.7	10.0	35.0	30.0	18.3	3.43

Respondents ranked their level of agreement for each barrier on a scale from 1 to 5, with 1 being strongly disagree and 5 being strongly agree.

Fisher exact analysis was undertaken to determine significant relationships between the barriers facing EM in hotels and hotel characteristics such as hotel star grading, hotel ownership type, and number of years in operation. Table 2 presents a summary for the significant estimate results. Results of the Fisher exact test revealed that the lack of promotion of EM in hotels was a barrier that significantly differed between the star graded hotels ( $p=.014$ ). A significant relationship also existed between the lack of environmental knowledge and skills and type of hotel ownership ( $p=.010$ ) and hotel star grading ( $p=.083$ ). The high costs associated with EM differed significantly between the hotel ownership type ( $p=.004$ ) and the hotel star grading ( $p<.000$ ). Analysis between the lack of specialized staff and hotel chain further yielded a significant relationship ( $p=.013$ ). There were no significant relationships between barriers such as no economic benefits associated with EM, no consumer demand, lack of government assistance, poor economic climate, the lack of environmental regulation and legislation and hotel characteristics.

**Table 2: Barriers to EM in Hotels by Hotel Characteristics –Fisher Exact Analysis**

Barriers to EM	Hotel chain	Hotel star grading
Lack of promotion of EM	.193	.014*
Lack of environmental knowledge and skills	.010*	.083
Lack of specialized staff	.013*	.116
Lack of environmental regulation and legislation	.278	.671
Poor economic climate	.516	.018*
High costs associated with EM	.004*	.000*
Lack of government assistance	.548	.591
No economic benefits	.175	.256
No consumer demand	.926	.701

\*Significant values ( $p<0.05$ ) Fisher's exact test

#### 4. Discussion

The study clearly unearths that hotels are perceived to have a detrimental impact on the environment in terms of energy consumption, water consumption and waste generation. More importantly, the study concludes that there are a number of barriers facing the implementation of EM in hotels. Lack of environmental regulation and legislation was cited as a key barrier to EM by most hotel managers in the study. It must however be noted that regulatory advancement does not necessarily relate to environmental action and regulations have little or no value unless enforcement is carried out. For example, according to Environmental Impact Assessment (EIA) report on regulation in Anatolia, hotels that comprise more than 50 guestrooms must prepare an EIA report. Despite this, a number of hotels have not met the legal requirements with only 20% of hotels having undertaken an EIA report (Erdogan & Tosun, 2009). Furthermore, although environmental regulations in Turkey are fairly advanced, there are major problems with monitoring and application of regulations (Erdogan & Tosun, 2009). A study conducted by Tzschentke *et al.* (2008) on barriers to green action in tourism firms in Britain heavily criticized local authorities for their apathy in encouraging responsible environmental behaviour and their lack of support to businesses wanting to engage in EM. According to Faulk (2000), subsidies and controls are highly effective ways to get companies to get engage in environment practices. Graci and Dodds (2008:262) confirm that “regulatory pressure is the way the world is, it’s going to be mandatory one day soon”. Despite South Africa’s commitment to responsible tourism, a weak regulatory environment exists in the country (Rogerson & Sims, 2012). There were no regulatory mandates that govern or monitor compliance in relation to EM in the hotel sector.

The study documents that high costs associated with the implementation of EM practices are also considered to be a key barrier to EM in hotels. This is further exacerbated by the poor economic climate within which hotels operate. One hotel manager affirmed that “with rising costs and increasingly opulent demands by tourism grading, economics prevents establishments from being as environmentally-responsible as one would like to be”. Another hotel manager in this study asserted:

*Environmental aspects are very important but ultimately it comes down to bottom line and cash flow. We have implemented some policies where we can but the major items (heat pumps, energy-efficient controls for lighting and air conditioner systems in the rooms, etc.) require a large capital outlay which for a small standalone unit in tough financial times is simply not viable. At this time they are wish lists which will be acted upon as the business climate improves. Job creation and retention is more important in the short-term than spending large amounts of capital on energy saving measures.*

These findings provide support for the assertions made by research undertaken in

hotels in Europe (Bohdanowicz, 2006), China (Min, 2011), Scotland (Tzschentke *et al.*, 2008) and Spain (Ayuso, 2007). A larger proportion of independent hotels cited “high costs” as a barrier to EM compared to chain hotels. Similarly, lower star graded hotels perceived high costs to be a barrier to EM compared to higher star graded hotels. Correspondingly, independent hotels and lower graded hotels in Europe and the US claimed that the lack of financial resources were a huge barrier to environmental management (Johnson & Ebrahimpour, 2009).

Future research is required on environmental management and resource conservation in all sectors of the accommodation industry, and not just hotels. Further research is also required on the benefits of environmental management programs in the accommodation sector in an attempt to motivate responsible practices.

The successful implementation of EM measures undoubtedly requires the input of money, time and people. The high costs of implementing EM practices are often more affordable to large scale companies and multinational enterprises and chains. Higher star graded hotels and chain hotels often tend to have the additional financial resources for the implementation of EM. This may be challenging for lower star graded and independent hotels who may not have the financial surplus to engage in EM. Moreover, chain hotels are obliged to follow the environmental policy set out by the chain headquarters (Park & Kim, 2014). Undeniably, the financial resources of businesses determines the extent of environmental management and “where there is little income coming in, green issues tend to go a bit on the back burner, whereas if business is good these issues tend to come bubbling up the priority scale” (Tzschentke *et al.*, 2008:173). However, while hotel managers believe that EM is associated with high costs, they are often unaware of the economically attractive payback associated with EM. Sustainable practices are generally cost-effective with short periods of payback and “many changes will pay for itself in short time” (Persic-Zivadinov & Blazevic, 2010:167).

Majority of hotels confirmed that lack of specialized staff and lack of environmental knowledge were key barriers to the implementation of environmental measures. Comparable findings were made by Chan (2008) in a study of hotels in Hong Kong where managers claimed that they did not have experienced environmental consultants to assist them develop environmental programs which in turn affected the implementation of EM practices in their hotels. Very few accommodation establishments, especially in developing countries, have the knowledge and skills to pursue environmental initiatives. Lack of environmental knowledge indisputably results in a low level of environmental performance and could



prevent hotels from knowing their role in contributing to sustainable development. Fraj *et al.* (2015) firmly believes that hotels must invest in learning capabilities prior to the development of environmental strategies. Hotels often do not engage in EM as they believe that there is little or no consumer demand for environmentally-friendly hotels. According to Johnson and Ebrahimpour (2009) the main barrier to environmental management in Europe and US hotels is lack of demand from customers. Lack of consumer demand results in managers giving environmental management a low priority in the management of their hotels. Widespread consumer awareness of EM is required to combat skepticism about EM and for raising demand for environmental quality in hotels (Gao & Mattila, 2014).

## **5. Conclusion**

In order for the hotel sector in KZN to advance in environmental management, a number of barriers need to be overcome. Discrepancy between attitudes and actual practice exists, whereby hotel managers believe that hotels have a detrimental impact on the environment but their actual commitment to the implementation of EM programs is constrained due to the number of barriers with which they are faced. There is a dire need for environmental legislation for the hotel sector, and government should be rigorous in formulating, implementing and enforcing such legislation. Government could also provide incentives for environmentally sustainable hotels, with penalties for environmental offenders. Subsidies could also be offered to hotels to assist with the start-up costs for environmental friendly technologies. Hotels could start with easy-to-achieve and low cost environmental projects, especially those hotels with tight financial resources.

The availability of such resources will, however, be dependent on the commitment from top management to the adoption of environmental management measures. Information and advice is also required to convince hoteliers of the cost savings related to EM and to dispel any misconceptions related to EM. Additionally, some sort of direct environmental education exposure is required in hotels and increasing environmental awareness and knowledge in all hotels is imperative. Information awareness and advice on environmental issues should also be easily accessible and available to this sector. Moreover, the potential benefits and cost savings of environmental management must be communicated to hotels. It is also important to investigate the views of hotel guests on environmental issues and their willingness to choose environmentally-friendly hotels. To increase the hotels sectors participation in environmental management, strategic links must be established with key stakeholders such as government, consumers and trade associations to develop a commitment to environmental responsibility, as their willingness and ability to engage in environmental

practices is imperative in striving towards sustainability in the hotel sector.

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