An Assessment of Management Commitment to Application of Green Practices in 4 – 5 Star Hotels in Mombasa, Kenya

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Abstract

Hotel businesses consume significant amounts of natural resources, discharge large amounts of raw and solid waste which consequently affects the sustainability of the natural environment. Environmental management and sustainability have been recent important issues in hospitality industry. The hotels, as a main sector of the hospitality industry, have benefited from environmental initiatives through improving corporate image and increasing resource and energy efficiency. In Kenya greening in hotels is a new concept that managers are yearning to embrace. This study therefore sought to establish the current state of green practices in four to five star hotels in Mombasa, Kenya. Further, this study also sought to determine the relationship between management environmental commitment and organizational involvement in green practices. Data was collected using questionnaires, interview schedules and observation checklists. The results indicated that 88.9 percent of the managers were not satisfied with their current issues while 81.5 percent were focusing on improving the green concepts. The study concluded that hotel managers should embrace regular environmental audits where environmental performance is constantly monitored and recorded. Environmental education and training were also considered valuable in developing awareness, knowledge, positive attitude, skills and participation in green practices.

Keywords: Kenya, hotel industry, managers, commitment

1. Introduction

1.1. Background of the study

The hospitality and tourism industry has brought unprecedented prosperity and improvements in the quality of life in Kenya. Despite its contribution to the growth of the Kenyan economy, it has also created enormous amounts of industrial, consumer and commercial waste and toxic gases which have resulted in rapidly depleting natural resources (Guillen, 2008). It is with these concerns about pollution that has resulted in the introduction of environmental regulations in Kenya, and accumulating evidence about global warming and the effects of human activity on the environment have led to a focus on what can be done locally to minimize environmental change.

In the hotel sector there are different practices associated with green concerns and they range from pollution prevention to environmental education. This research defines green practices as internal efforts or activities of a hotel to implement environmentally friendly practices with the aim of becoming a green hotel. Hotels are currently striving to embrace green practices even though there is no universally agreed upon definition of a green hotel (Harris and Crane, 2007). In response to the implementation of green practices, some companies in the hotel sector such as Sarova group, Serena group, Hilton, Intercontinental group, Safari Park, Tamarind and Fairmont group are making an effort to improve their environmental practices. There has also been pressure from organizations such as Ecotourism Kenya, NEMA, Kenya Association of Hotel keepers and Caterers, Kenya Tourist Board that currently requires all hoteliers and tour operators to embrace green certifications failure to which they discourage prospective customers from engaging in business with them.

Ecotourism Kenya founded in 1996, promotes sustainable tourism practices within the tourism industry in Kenya. It is aimed at encouraging the adoption of best practices in the use of tourism resources, working with local communities and managing wastes and emissions. Ecotourism Kenya manages a certification scheme for tourism accommodation facilities based on environmental and social criteria. The program allows hotels, lodges and camps that apply for eco-rating to be evaluated and recognized for best practices such as high quality, excellent superior and replicable practices (Ecotourism Kenya, 2010).

The Kenyan hotel industry has slowly adapted the application of green practices. Owing to the significant role that tourism and hospitality industry plays in the Kenya's economy it is therefore important to explore and determine the current state of green practices in hotels as few studies have been conducted in this area.

1.2 Significance of the study

The results of this study will benefit hospitality management curricula by providing the role of hotel management in policy formulation and implementation of green practices in the hotel sector. The study will also provide information on managerial functions and perceptions towards green practices. This will improve student instruction in hospitality management programs with respect to this concept. It also aimed at enabling hotel

companies to enhance their understanding of managerial functions related to environmental conservation and effectively convey this to consumers and staff. The study will also enhance partnership and cooperation with such stakeholders as the ministry of tourism, NEMA, customers and suppliers in enforcing green practices.

2. Review of Literature

2.1. Hotel Managers Understanding and Awareness of Green Practices

Much research in general industries emphasizes improved stakeholder relationships as one of the most significant external forces that drive corporate environmental initiatives (Banerjee, 2007; Lee, 2008). Some research in the hotel sector also presented empirical evidence that environmental initiatives are driven by stakeholder influence, such as government, customers, and nongovernmental organizations (NGO's). The second driver involves monetary benefits or financial gains that can be realized from green practices (Mensah, 2007, Tzschentke et al., 2008). The third motivation for hotels going green is harnessing positive public relations and marketing (Florida Green Lodging Conference, 2008, Cortés et al., 2007, Tzschentke et al., 2008). The term green hotel aids in attracting more business because many corporations want to hold their business meetings at green hotels. According to Mensah (2007), the number of firms that considered green facilities for their meetings increased by 10 percent between 1997 and 1998. On the other hand, Bohdanowicz (2008) identified demands from customers as another influential incentive for hotel managers to adopt environmentally friendly practices in the European hotel sector. This implies that hoteliers are increasingly aware of the customers' increasing concerns about the natural environment and corporate social responsibility, and their environmental purchasing trends.

In a similar vein, Musau and Bruce (2006) examined perceptions of overseas visitors to Kenya towards the impact of the hotel sector on the environment. A significant finding was the willingness of respondents (66.5%) to pay a higher rate for an environmentally friendly hotel. These results confirm a number of previous studies that have shown that there is willingness among tourists to pay a premium for environmentally friendly products and services including accommodation. From these findings it is apparent that Kenya's hotel sector has scope to prepare, develop and market sustainable products and services that promote environmental awareness thus increasing both yield and visitor

2.2. Green Practices Application

2.2.1 Energy Consumption

A hotel operation requires and uses energy on a daily basis for 24 hours, irrespective of seasonality, number of guests and its location (Kasim, 2007; Deng, 2005). The energy consumed by hotels is used for space heating, cooling, ventilation, hot water, lighting, laundry, kitchen, recreation and miscellaneous uses (Dascalaki and Balaras, 2007). Bohndanowicz (2008) reveals that the use and consumption of different forms of energy by hotels leads to the release of harmful gases into the atmosphere and leads to air pollution. The harmful gases said to be emitted due to consumption of different energy resources by hotels is estimated at 160 and 200 kg of carbon dioxide per square meter of room floor area, depending on the type of fuel used to generate electricity(Bohdanowicz, 2008; Kirk, 2008; Bohdanowicz and Martinac, 2008). The emission of such harmful gases results in the alteration of biogeochemical cycles and also release of carbon dioxide leading into global warming (Gossling, 2006).

Kenya's electric power supply is unreliable and expensive impacting negatively on quality and competitiveness of its goods in the regional and international markets. Despite the past reforms, the quality of electricity services has not improved as evidenced by the frequent unplanned power failures. Hotels should therefore adopt alternative sources of energy such as wind, biomass and solar power, (Theuri, 2010). One area in which Kenya has made impressive gains is in the recycling of organic waste to provide an alternative source of fuel for water heating and cooking. With the growing bans on fuel wood particularly in the national parks fuel briquettes are being made from an increasing variety of waste materials. Such practices will help to save the remaining forests in the country's main reserve, which have been ravaged by tree-felling and charcoal burning.

Hotel sector could make a major positive contribution to the environment by taking some measures to reduce energy consumption which will, in turn, reduce pollution and resource depletion. Thus while the hotel sector consumes a big proportion of electricity as compared to other tourism sectors, hotel operators still have a chance to implement energy saving campaigns and environmental management systems.

2.2.2. Water consumption

Hotels may have high water consumption depending on each hotel's accommodation capacity, standard and the type of facilities and services provided (Bohdanowicz, 2008). Kasim (2007) noted that luxury hotels in particular consume large amounts of water for leisure purposes such as swimming pools, spas and golf course irrigation. It has been estimated that the consumption of water by guests in a hotel per night will depend on several factors like the hotel standard and facilities that are provided for the guest. For example, Alexander (2008) found that in

a high standard hotel organization the hotel room would require 396 gallons (1,499 litres) of water per day, which is enough to support 14 local people. It is further estimated by Bodanowicz (2008) that the standard consumption pattern of hotel guests would range between 170 and 360 litres of water use per night. According to Alexander (2008), water use in hotels will increase to 475 gallons (1798 litres) per day for each guest room in a luxury hotel by 2010.Water consumption at these rates, and without monitoring or control, will likely lead to water shortages.

The amount of water consumed by hotels is more than the normal household consumption, thus larger consumption means a larger quantity of contaminated water will be released in the environment, thus polluting the water bodies and harming the environment (Kirk, 2008; Kasim, 2007). National Environment Management Authority has directed beach hotels to acquire technology to ensure they treat their waste. According to NEMA Sun n Sand Hotel and Severin Lodge are some of the hotels that treat their waste water, (Ondiege and Nzioka, 2011). The environmentalists reported that pollution of the Indian Ocean might lead to serious effects including the extinction of species of fish and other marine life. Technology, knowledge and sustainability programmes are needed for organizations to consume water more efficiently and to minimize contamination of water supplies. Water conservation is a necessary step taken by hotels to control and minimize waste.

2.2.3. Waste Generation, Reduction and Recycling

According to Alexander (2008), there is a variety of waste produced by a hotel and it consists of paper, food, various metals, plastics, aluminium and glass. Kasim (2007) estimates that hotel waste consists of 46% of food waste, 25.3% of paper, 11.7% of cardboard, 6.7% of plastics, 5.6% of glass and 4.5% of metal waste. Kasim (2007) reported that hotel waste generation is on a much larger scale as compared to waste generated by households. This indicates that waste management is a serious environmental issue for hotels that are located on island destinations like Mombasa and developing countries such as Kenya, where there are problems of limited land areas to dispose solid waste. According to studies carried out in Maasai Mara it is believed that steady increase in tourist number leads to increased waste generation both solid and liquid,(Otieno,2010). Pollution from beach hotels through solid wastes, sewerage and detergents is taking a heavy toll on the beaches and fisheries. It is not in the interest of hotel keepers to invest in expensive waste management facilities, while the local authorities lack the capacity to monitor infringements and enforce the law. On Funzi Island for example it is feared by local fisheries experts that sewage from a new hotel will pollute fisheries and threaten the livelihood of fishermen, (Muthini, Tole and Otieno, 2008).

2.3 Management Commitment to Application of Green Practices

Voluntary approaches have been considered important initiatives since the 1990s to improve the environmental performance of industries that have direct or indirect effects on the environment from their operations (Paton, 2005). Voluntary approaches adopted by firms help them to achieve the environmental goals of the firm and also help to improve internal actions to minimize adverse impact effects on the external environment. Ayuso (2007) states that the most common voluntary instruments used by the hospitality industry are codes of conduct, environmental management systems (EMS), best environmental practices, eco-labels and environmental performance indicators.

The voluntary approaches can play two significant roles in environmental policy area. First of all, it can be used as a transitional policy instrument for the hotel to prepare for the introduction of a new or more stringent regulation, as well as to encourage leadership and innovation. Such include external relationships as well as organizational system and control. Secondly, voluntary approach might be used as a mechanism to address some of the limitations of the corporate cost-benefit assessments. According to Arimura, Hibiki and Katayama (2008), voluntary environmental actions are meant to improve the impact of business operations on the environment but this also provides other benefits to the participating firm by improving cost effectiveness, improving flexibility and promoting technology innovation.

3. Research Method

3.1 Research Design

The study adopted the descriptive survey design, as a process of collecting data in order to answer the questions concerning the current status of the subjects in the study. The design adapted was used with an intention of capturing specific facts and opinions from the respondents (Mugenda, 2003). The dependent variable was green practices while independent variable was hotel management commitment.

3.2 Population, Sample and Sampling Procedure

The target population comprised top management, middle management and key operatives in selected four and five star hotels in Mombasa. The sample hotels in this study were drawn from the current star rating classification in Kenya as gazetted in 2003 where three hotels were ranked as five star and eight ranked as four star in Mombasa, giving a total of eleven hotels as the sample population. Since this is a small sample size

studying the whole population was appropriate for ease of generalizing the research findings, (Mugenda, 2003). The departments which were involved include restaurant, food production, housekeeping/accommodation, front office, sales/marketing, finance and maintenance. Top managers, line managers, and key operatives were involved. In each hotel the General manager and Resident manager represented the top management, 7 line managers were selected using stratified random sampling to avoid bias (Kothari, 2004). Seven key operatives were selected in each hotel using purposive sampling to give specific information on environmental operations. The total number of respondents expected was 176.

3.3 Method of data collection

Structured questionnaires were used to collect demographic information. The interview schedules were also used to collect data on hotel management commitment from top managers and line managers. The questionnaires were researcher-administered. Both structured and unstructured questionnaires were used to generate data on environmental performance from managers and key operatives. Observational checklist was used to record additional information on green practices. Other observable green practices were captured using photographs. The questionnaires used the scale rating under Likert where strongly agree=5, agree=4,Neutral=3 disagree=2 and strongly disagree=1(Top managers and line managers).For the key operatives questionnaires the scale ratings were as follows: very great extent =5, great extent=4, Neutral=3, some extent=2, no extent =1.

3.4 Pre-testing

A pilot test was conducted in Safari park and Windsor hotel respectively to assess the appropriateness of the survey questions, item clarity and validity of constructs before the actual study. These were selected randomly and were not included in the final study. Test retest method was used where twenty questionnaires were administered and re administered after two weeks to test reliability following which adjustments were made to the survey questionnaires. The results obtained from the two samples were also compared where the validity of hypothetical constructs were checked for consistency.

3.5 Method of data analysis and presentation

The collected data was edited, coded and organized using statistical package for social science (SPSS).The quantitative data was analyzed using various statistical tests; Descriptive statistics were used to determine the frequency and percentage for the objectives and variables. Inferential statistics were used to establish relationship between independent and dependent variables. Pearson product moment correlation and chi square were used to verify the hypotheses where management commitment was correlated with existing green practices. The relationship between profit growth rates and green practices was tested using product moment correlation. The analyzed data was summarized and presented in form of tables and graphs. Qualitative data was transcribed and categorized into themes. Analysis of qualitative data was done using content analysis.

4. Results and discussion

4.1 Demographic characteristics of the respondents

Out of 176 questionnaires which were administered to the respondents 144 were completed which represented 81.8 percent response rate. Two five star and seven four star hotels participated. Eighty one top and line managers and 63 key operatives were involved.

The results shows that the demographic characteristics of the managers (46) (56.8 percent) were male and 35 (43.2 percent) were female. This indicates that, a big number of the managerial positions are held by men. In terms of age, more than half of the managers 46 (50.6 percent) were aged 25-32 years, followed by 32-45 years) while 18-25 years comprised of 23.5 percent. These results indicate that the majority of the managers in the Kenyan hospitality industry are relatively young.

The level of education ranged from masters degree to certificate holders. Those with degrees comprised of 18.5 percent while others (on job training) comprised of 4.9 percent. The majority of the managers had attained a diploma certificate comprising of 41 respondents (50.6 percent). This can be attributed to the fact that the Kenyan hospitality industry is still young in comparison to other fields. But with the many upcoming universities offering bachelors programs, in years to come, the hospitality industry will be equipped with qualified personnel. For key operatives, 36 (57.1%) were males while 27 (42.9%) were females. Respondents aged 25 to 32 years had the highest percentage (50.8%). Those aged 32 to 45 years had 25.4 percent while 23.8 percent consisted of 18 – 25 years. The level of education ranged from certificate to on job training. The highest percentage (53.9%) comprised of diploma holders while both HND and on job training (others) had the same percentage of 4.8 percent. Those with a university degree had 15.9% while certificate holders had 20.6 percent. Most respondents (39.7) had worked in the hotel for 1 to 3 years while those with a working experience of less than one year had 3.2 percent.

Using the same criteria as for line managers the departments which participated were restaurant, food production, housekeeping/accommodation, front office, sales/marketing, finance and maintenance. There was equal

participation of key operatives in the seven departments which were involved where all departments were equally represented by one key operative. The key operatives were involved so as to give specific information about green practices implemented by the hotels hence establishes the relationship between commitment expressed and subsequent implementation.

4.2 Hotel managers awareness of green practices

Most managers (60.5%) were aware of having an environmental policy in their hotels while 39.5% of them were not aware. In support of these findings NEMA reported that a few hotel companies in Kenya had participated in the green initiatives and adopted a pro environmental policy (Marete, 2010). Kirk (2008) noted that management commitment and support is important to nurture organizational ideas about environment. He further reports that the support of senior management is not only critical in ensuring compliance with environmental policy but also resolving conflicting objectives in hotel operations. Once environmental policies are agreed upon objectives must be established and the necessary resources provided to achieve them. The objectives should lead to an agreed programme of changes which should be communicated to those entire involved ((Kirk, 2008). He further points out that in order to implement a programme of environmental management it is necessary to identify a group of staff who will plan this implementation and who will communicate both the reasoning behind the plan and its details to all staff involved and who will act as champions of the plan. The functions of such a group or committee include raising awareness, building commitment, and providing support, celebrating success, rewarding and recognizing efforts. In order for an environmental program to be successful, the goals and objectives should be incorporated into employee training**.**

The managers indicated various green practices which are highlighted in their hotels environmental policy. The most frequent response (76.5%) was towel reuse followed by engaging in planting trees, grass and flowers (74.1%). Other common green practices highlighted in the environmental policies include safe disposal of food waste (67.9%), green procurement (66.7%) and cleaning of beaches (63%). The results also showed that less than half of the hotels were committed to control of harmful emissions and noise pollution (44%). More than half of the participants indicated that their environmental policy highlights safe disposal of food waste (67.9%). In the kitchen, over-preparation, cooking losses or packaging failures quickly lead to the accumulation of food waste (Bohdanowicz, 2007).

4.3 Hotel management commitment

This represented management voluntary approaches, the major independent variable. Hotels engaged in both external relationships and internal organizational systems as a commitment to enhance green practices. Most participants (54%) indicated that the hotels were to a very great/great extent committed to cooperating with NGOs to strengthen green practices. Other external relationships included supporting local communities (58.7%) and educating guests on environmental friendly practices and policies (84.1%).

While 42.8% of the participants indicated that the hotels were to a very great/great extent involved in monitoring and recording environmental performance 33.3% were neutral and 23.8% pointed out that they were committed to some extent.

Majority participants (66.6%) indicated that the hotels were to a very great/great extent committed to employee environmental training programs while 7.9% were neutral and 25.4% felt that there was commitment to some extent .More than 70% of the participants indicated that the hotels were to a very great/great extent committed to engaging a manager or team in environmental management, implementing smoke free policy to reduce air circulating costs and pursuing green certifications. Almost 60% of the participants also pointed out that the hotel were to a very great/great extent committed to supporting local communities in enhancing the local environment. The voluntary approaches can play two significant roles in environmental policy area. First of all, it can be used as a transitional policy instrument for the hotel to prepare for the introduction of a new or more stringent regulation, as well as to encourage leadership and innovation. Such include external relationships as well as organizational system and control. External relationships include establishing a formal channel to cooperate with NGO's, establishing customer education programs, supporting local communities to enhance local environment. Organisational system and control includes monitoring environmental performance and reporting, providing employee environmental training, having a written environmental policy, having a manager or a team in charge of environmental management, top management involvement in environmental management and pursuing green certifications. Secondly, voluntary approach might be used as a mechanism to address some of the limitations of the corporate cost-benefit assessments, for example, to turn the focus of investments to long-term business sustainability instead of short-run returns (Sullivan, 2008). According to Arimura, Hibiki and Katayama (2008), voluntary environmental actions are meant to improve the impact of business operations on the environment but this also provides other benefits to the participating firm by improving cost effectiveness, improving flexibility and promoting technology innovation.

While 25 (88.9%) of the responses reveal that most managers are not satisfied by their current green practices, 17 (81.5) responses indicate a large number of managers were focusing on improving the green concepts adopted. Marete (2010) reported that luxurious hotels especially 4-5 star hotels use a lot of resources and engage in numerous practices to achieve guest satisfaction at the expense of the environment however the results confirmed an increased level of environmental awareness. In support of the above findings Kirk (2008) noted that enlightened management is one of the main driving forces for environmental change.

4.4 Green practices implemented in the hotels

They comprised of the dependent variable with specific practices which were derived from four general categories namely energy management, waste management, water conservation and green procurement/ recycling. The majority of the respondents, 65.1% felt that the hotel's involvement in installation of water efficient devices and equipment has been done to a very great extent. Other popular green practices which were adapted to a very great or a great extent include implementation of linen and towel reuse (58.7%) use of environmental friendly cleaners (58.7%), use of energy efficient equipment and lighting (50.8%). Among the least practiced environmental activity was composting of organic kitchen waste (25.4%)

The findings concurred with Kirk (2008) who indicated that employee training and environmental education need to be addressed more thoroughly. This implied the need to create more environmental awareness and strengthen organizational monitoring systems to control green practices. In support of the above findings Bohdanowicz (2008) noted that in addition to linen and towel reuse program installing low flow faucets, shower heads as well as low water volume toilets has attracted much attention from hoteliers as one of the most efficient water saving measures because they can be implemented through a relatively low level of modification and financial investment.

Out of 9 hotels, 7 (77.8%) used energy saving bulbs while 2 (22.2%) did not. While 5 hotels (55.6%) used solar panels as an alternative source of energy (Figure 4.5), 4 hotels (44.4%) did not have solar panel. Most hotels (77.8%) made use of daylight to minimize use of artificial lighting while 22.2% of the hotels did not have adequate access to natural lighting. In support of the above findings Anjali and Osawa (2008) reported that a good start is in the replacement of ordinary light bulbs with energy efficient lamps. They further noted that partnership with energy service companies help in structuring project financing of energy improvements and building the case to the senior management that investment in energy improvements are investments in profit centres.

More than half of the hotels engaged in water treatment /purification (66.7%) while 33.3% did not. Green purchasing and procurement was embraced by 6 hotels (66.7%) while 3 hotels (33.3%) did not employ the practice. The analysis also showed that more than half of these hotels (55.6%) involved the local communities in environmental management. In support of the above findings Bohdanowicz (2008) reported that the potential for energy saving through green practices such as replacing light bulbs with energy efficient ones has been estimated at 10 – 25 percent depending on age and size of the hotel.

Further implications included damage caused to the environment through cutting trees to provide energy as well as excessive use of electricity for water heating from the overstretched national electric grid. As part of water conservation 8 hotels (88.9%) had installed low volume fixtures which included low flow water taps and low flow flash toilets

4.5 Conclusions

The results pointed out to a positive relationship between hotel management commitment and application of green practices. The findings indicated not only the importance of having an environmental policy but also a better understanding of green practices so as to nurture commitment. 88.9% of the managers were not satisfied with their current green practices. This reveals a knowledge gap where environmental policies need to be reviewed regularly so as to highlight sensitive areas of greening. On the other hand the environmental policy should be strictly followed to ensure implementation meets the required standards of greening. The hotel sector has a room to foster high levels of commitment. Environmental education and training were therefore considered valuable in developing awareness, knowledge, positive attitude, skills and participation in green practices

4.6 Recommendations

Hotel managers should embrace regular environmental audits where environmental performance is constantly monitored and recorded. This can be achieved by developing organizational systems and control to facilitate environmental reporting. Targets for each department should be set and results continuously monitored. The hotel management should create environmental awareness through developing a team in charge of environmental management/training as well as having a written environmental policy which is regularly reviewed and updated. This is likely to address the gap between management commitment and green practices application. The environmental policy as well should address neglected areas such as control of harmful emissions. Hotel

management should promote partnerships with external stakeholders such as supporting local communities in environmental activities, cooperating with NGOs training customers in environmental management as well as teaming up with local government and recycling firms to promote waste sorting and recycling.

References

Alexander, S. (2008). Green hotels: Opportunities and resources for success. Zero
        Waste Alliance, 2-9

Anjali, S and Osawa B (2008). Energy conservation in hotels. *Ecoforum, 26 (2)* 8-11

Arimura, T. H., Hibiki, A. and Katayama, H, (2008): Is a voluntary approach
        an effective environmental policy instrument? A case for
        environmental management systems. *Journal of Environmental*
        Economics and Management, 55, 281 – 295.

Ayuso, S. (2007). Adoption of voluntary environmental tools for sustainable tourism:
        Analysing the experience of Spanish hotels. *Environmental Management, 13,* 207- 220.

Bohdanowicz, P. (2008). Environmental awareness and initiatives in the Swedish and
        Polish hotel industries-survey results. *Hospitality Management, 25,* 662-682.

Bohdanowicz, P. and Martinac, I, (2008).Attitudes towards sustainability in chain
        hotels: Results of a European survey. *International conference on smart and*
        sustainable built environment,19 (210) 1-10.

Dascalaki, E., and Balaras, C. A. (2007). Xenios- a methodology for assessing
        refurbishment scenarios and the potential of application of RES and RUE in
        hotels. *Energy and Buildings, 36,* 1091-1105.

Ecotourism Kenya. (2010).Company program.
        http://www.ecotourismkenyaco.ke

Gössling, S. (2006). Global environmental consequences of tourism. *Global Environmental Change, 12(4),* 283-302

Kasim, A. (2007). Towards a Wider Adoption of Environmental Responsibility in the
        Hotel sector. *International Journal of Hospitality & Tourism Administration,*
        8(2), 25-49.

Kirk, D. (2008). Environmental management in hotels. *International Journal of*
        Contemporary Hospitality Management, 7(6), 3-8.

Kothari.C. R (2004) Research Methods. India. New Age International
        Publishers.pp.65

Mugenda, A.G. and Mugenda, O.M. (2003). Research Methods. Nairobi.
        Laba-graphics Services. Pp44.

Ndurya M. and Marete, G, (2010); Hotels set for green star rating.
        http://www.nema.co.ke

Scanlon, N.L. (2007). An analysis and assessment of environmental operating
        practices in hotel and resort properties. *Hospitality Management, 26,* 711-723.

Serena   Group (2010).Serena awarded best for environmental conservation,
        http://www.serenahotels.co.ke   .

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