



AN ANALYSIS OF ENVIRONMENTALLY FRIENDLY WASTE MANAGEMENT INITIATIVES IN HOTELS IN ZIMBABWE

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Abstract: *Globally, the concept of sustainable development has been a buzzword for several years (Grossling et al, 2002). Although the hospitality sector has been for the larger part ignored and considered as having less negative impacts on the environment, recently, the sector has joined in the war against environmental degradation. The sector is integral in the development of tourism (Foster, 2002), operates on a daily basis and generates a large amount of waste (Bohdanowicz, 2005). The need to use environmentally friendly waste management methods cannot be overemphasized. In fact, Bohdanowicz (2005) discovered that 50% to 60% of waste generated in hotels can be recycled. The Zimbabwean hospitality sector plays a pivotal role in the tourism industry, which is a development sector of choice for Zimbabwe. This study used qualitative methods to assess the waste management strategies employed in 41 licensed hotels in Zimbabwe. The findings indicate that most Zimbabwean hotels have a policy on environment and waste disposal although the policies are being implemented at varied levels. It is concluded that the implementation of responsible waste management policies could improve if there were set benchmarks which affect the hotel's license renewal. This paper recommends that government policies be put in place to increase motivation for hotels to treat waste in a more responsible manner.*

Key words: *Environmentally friendly, "green" hotels, waste management.*

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1.0 INTRODUCTION

The hospitality sector stands as an industry of major economic significance and social and environmental impact (Mellisen, 2012). For many years, it has been clear that accommodation sector has played an important role in ecological deterioration (Bohdawicz, 2005). However all segments of accommodation sector have begun to take action in doing their part to sustain the physical environment and they embark on environmentally friendly initiatives (Graci and Dodds, 2010).

The term environmentally friendly is often used synonymously with the terms like green, environmentally sensitive, and ecologically sounds (Kim, Palakurthi&Hancer 2012:198). Kim, Palakurthi&Hancer(2012:200) state that an average of 5.3 kg of waste is produced per guest per day in a hotel organization. However, Scandic hotels, which have an extensive waste management programme reported an average of 0,515 kilograms of unsorted waste per guest per night in 2009(Bohdanowicz 2005:190). This shows a considerable decrease in the amount of waste in a hotel that has embarked on a waste management programme. The Western San Francisco Airport hotel introduced a recycling programme that promotes the recycling of 22 tons of materials and made a saving of \$6000 annually(Alexander 2002). This shows that hotels can make savings through sustainable waste management programmes.

1.2 Statement of the problem

The indiscriminate dumping of solid waste littering and poor management of waste now pose both environmental and health hazards particularly to the urban population in some cities in Zimbabwe. Hotel sector as a major component of urban accommodation faces such environmental health hazards, threatening the wellbeing of customers. There has been a growing concern for a “green” hotel in the eyes of customers (Chan &Ho, 2006:301), as they are having an increased awareness of environmental damages and excessive consumption of goods, energy and water (Han, Hsu, Sheu 2010:325). Environmental sustainability is also being affected by increasing pollution of land, air and water bodies. Accordingly, it is imperative that a study be carried out, analyzing the environmental friendly waste management initiatives in hotels in Zimbabwe

1.3 Objectives

1. To establish the current waste management initiatives in hotels in Zimbabwe



1.4 Research questions

1. What are the current waste management initiatives in hotels in Zimbabwe?

1.5 Literature review

The growth of tourism as one of the largest industries in the world calls for effective waste management (Dileep 2007:378). Tourism includes the hospitality sector as its major component. Hospitality organisations are defined as those organisations, which provide accommodation and food for tourists during holidays and events. Slattery (2002), understands the sector as including hotels, restaurants, bars and events venues. Mellisen (2012) laments of the difficulty of understanding the meaning of hospitality and differentiating it from the tourism sector. Brotherton (1996) concluded that the term hospitality has been used in a variable and fluid manner. Pizam (2009) concurs and reiterates that there is still confusion about the differences between the hospitality and tourism and travel industry. To date, there is still a lack of clarity and consensus about the term hospitality. Mellisen (2012) notes that notwithstanding all the various suggestions about what hospitality is, it is a commercially oriented industry.

Although the origin of the hospitality industry is philanthropic in nature, Lynch (2009) argues that when hospitality becomes a commercial transaction, it becomes a controlled negotiation between customer and host or between buyer and seller. Slattery (2002) emphasises that scholars should concentrate on understanding the industry by learning from the past and realising that hotels and restaurants, bars and event venues are businesses where the critical relationship is between sellers and buyers. The relationship is not philanthropic but economic (O’Gorman, 2009). In this paper, the hospitality sector is understood as to encompass hotels, lodges, restaurants (including fast food restaurants), conference venues and outside catering organisations, in line with Ottenbacher, Harrington and Pasch’s (2009:266) definition.

Hotels as the primary accommodation type play a major role in hospitality and they have negative environmental impacts hence it is imperative that hotels take action to mitigate these impacts such as environmental waste.

What is waste?

Waste materials can be defined as both flowing and non-flowing substances that include residues; by products or end products in the production distribution or consumption of



goods and services. Waste causes direct environmental hazards such as pollution of water air and soil, affecting society and damaging the environment (Dileep 2007:382).It can also be defined as unused material produced as a result of inefficient production and /or consumption practices and puts economic and environmental costs on society through collection, treatment and disposal (Radwan et al., 2012:535).

Waste could be classified as Hazardous and non- hazardous, biodegradable and non-biodegradable, recyclable and non-recyclable (Feresu 2010:169). Further, depending on the general land use of the area where waste is generated, the waste may also be described as residential, industrial, commercial, institutional, construction and agricultural wastes.

Waste generation in hotels

In general, the hotel industry is not typically perceived or regarded as a major polluter especially when compared to heavy or smoke stack industries (Jackson 2010:212). Deiner, Parekh &Pitera observe that the negative environmental impact of an individual hotel is significant. A hotel's operations require and generate inputs and outputs that involve water, energy, chemicals food sewage and solid waste.

Hotels have adopted several environmentally friendly programmes. Many hotels have been interested in the reduction of solid waste, water consumption and energy consumption in order to comply with environmentally friendly efforts (Kim et al., 2012:199).A typical solid waste production in a hotel comprises of 46 % food, and non-recyclables, 25 % paper, 12% cardboard, 7% plastics, 5% glass and 5% metals. Approximately 47% of waste can be recyclable. (Kasim 2006).The international hotel environmental initiative (IHEI) indicated that solid waste generation is considered one of the most adverse environmental impacts created by hotels (Radwan, Jones &Minoli 2010:176).

Waste management methods

The aftermath of the Rio Earth Summit stipulated the efforts to handle waste more effectively and efficiently which resulted in the formulation of a few strategies. These strategies included minimizing production of waste; maximizing use of waste by recycling; and promoting environmentally sound waste disposal practices (Dileep 2007:378). Waste minimization is a waste management method that can be of significant advantage to hotel operators for its potential not only to reduce disposal costs, but also to assist hotels in complying with future regulations and to protect the environment from the destructive



impacts associated with landfill (Radwan, Jones, &Minoli 2010:176) Waste minimization involves the use of e-mail for all internal communications and encourages customers to reserve online so that they do not have to send confirmation letters (Radwan et al., 2012:540)

Reuse is yet another waste management option which involves the use of the same product over and over again in its original form (Dileep 2007:379). Hoteliers consider reusing materials through various channels. They buy reusable bags to reduce their consumption of plastic bags. They also donate to charities or staff old linen (Radwan et al., 2012:540).

Another waste management method is recycling. Recycling waste management involves collection of used or unused items that would otherwise be considered waste, sorting and processing the recyclable products into raw materials and use to make new products (Dileep 2007:379).

Composting is another common practice. Garbage from the kitchen, yard trimmings can be composted. This is basically the process of converting any waste that is organic into useful manure (Dileep 2007:378). Composting is a sustainable alternative for organic waste and offers economic and environmental value by reducing waste up to 40% and producing material that can either be sold for profit or used as a soil nutrient (Radwan et al., 2012:536). 46 percent of hotel's solid waste is food waste (Alexander 2002). Since all food waste can be composted waste, hotels increasingly consider it a better alternative to dumping so that it can be used as organic fertilizers (Alexander 2002).

One of the most common traditional waste handling abatement methods is landfilling (Dileep 2007:379). Landfilling is a widely practiced form of waste management option where waste is collected from one area and dumped in a less populated area is referred to as landfill (Dileep 2007:378). Landfill is basically a carefully engineered depression in the ground onto which waste is deposited (Dileep 2007:378). Landfill causes problems mainly on water, soil and air (Dileep 2007:378; Radwan, Jones &Minoli 2010:176). The waste heirachy identifies a range of more sustainable waste disposal options such as minimization, reuse and recycling which hotels could use to guide their solid waste management practices (Radwan et al.,2010:176)

Burning is another waste handling method which can reduce the quantity of waste to a minimum, resulting in ash and gases, but it poses a threat to the environment by producing



toxic gases (Dileep 2007:379). Incineration is another waste treatment method that has emerged relatively recently. Basically incineration involves burning waste in a machine under controlled presence of air and it helps to reduce waste substantially (Dileep 2007:378).

Methodology

The research was carried out using qualitative research design. The population for this study comprised all general managers of all hotels in Zimbabwe. A random sampling procedure was used to select a total of 41 hotels from the hotel population. The study used self-administered questionnaires. The questionnaires consisted of eighteen closed ended questions seeking yes/ no answers with space for comments about the response. Data was analysed using SPSS 22. Data was then presented in frequency tables followed by descriptive narrations and chart.

RESULTS

Initiatives Frequencies

		Responses		Yes
		N	No	
Initiatives ^a	You have an environmental policy for hazardous and non-hazardous waste in place	30	28.6%	71.4%
	You have separate labelled containers for solid waste such as cardboard, plastic, glass metals food waste	26	38.1%	61.9%
	There are some non-recyclable materials produced in your hotel	38	9.5%	90.5%
	You make bulk orders in drums of soap, shampoos, dish washing liquid and refill to reduce disposable containers	29	31.0%	69.0%
	You have rain water harvest scheme at your hotel	17	59.5%	40.5%
	Outdoor waste such as leaves and algae etc is put into further use at our establishment	28	33.3%	66.7%
	You donate reusable items such as furniture such as furniture, food and linen to charities or employees	32	23.8%	76.2%
	You serve food and beverages in reusable containers	37	11.9%	88.1%
	Separate labled waste bins are provided in guest rooms	16	61.9%	38.1%
	Indoor and outdoor liquid waste is put into further use	16	61.9%	38.1%
	You have ways to encourage guests to reuse towels and bed linen more than once	22	47.6%	52.4%
	You have training programme for employees on environmental friendly	30	28.6%	71.4%
	You think there are some limitations in your waste reduction practices in your hotels	37	11.9%	88.1%
	You have recommendations to make on environmental friendly practices that best suit your hotel	32	23.8%	76.2%

a. Dichotomy group tabulated at value 1.



The findings of the study revealed that the majority of the hotels constituting 71.4% have an environmental policy for hazardous and non-hazardous waste in their hotels. 28.6% said they do not have environmental policies in place. This suggests that majority of hotels are concerned about environmental issues. The findings of the study also revealed that a majority of hotels constituting 69.9% stated that they have separate labelled containers for solid waste such as cardboard, plastic, glass, metals and food waste. 38.1% do not have these separate containers for solid waste. This means that solid waste is separated as part of waste management in most of these hotels. A majority of 90.5% said that there are some non-recyclable materials produced in their hotels and only 9.5% indicated that there are no non-recyclable materials produced in their hotels. 69% said they make bulk orders in drums of soap, shampoos, dish washing liquid and refill to reduce disposable containers. That means there is prevention of waste as dispensers are used instead of individual small bottles. However 31% said they do not make bulk orders of soap, shampoos and dish washing liquid. These hotels do not make an effort to prevent waste in the form of individual containers.

Only 40.5% said they have rain water harvest scheme at their hotels while 59.5% said they do not have rainwater harvesting scheme. 66.7% said outdoor waste such as leaves and algae is put into further use at their establishment. This suggests that they use such material on composts for production of natural manure. However 33.3% do not put leaves and algae into further use and they send these materials to a landfill. 76.2% said they donate reusable items such as furniture and linen to charities or employees. This indicates that there is a reuse initiative in support of charity organisation and employees. However 23.8% said they do not donate reusable items such as furniture and linen to charities or employees. 88.1% said they serve food and beverages in reusable containers. This suggests that they use plates cups and water glasses, thus avoiding use of disposable materials which increase the amount of waste.

Only 38.1% said separate labelled waste bins are provided in guest rooms while 61.9% said they do not provide labelled waste bins in guest rooms. This implies that in most hotels waste is not separated before it is put in bins. This makes it difficult to separate waste for waste management options such as recycling, composting etc. 38.1% said indoor and outdoor waste is put into further use. A majority of respondents constituting 61.9% said

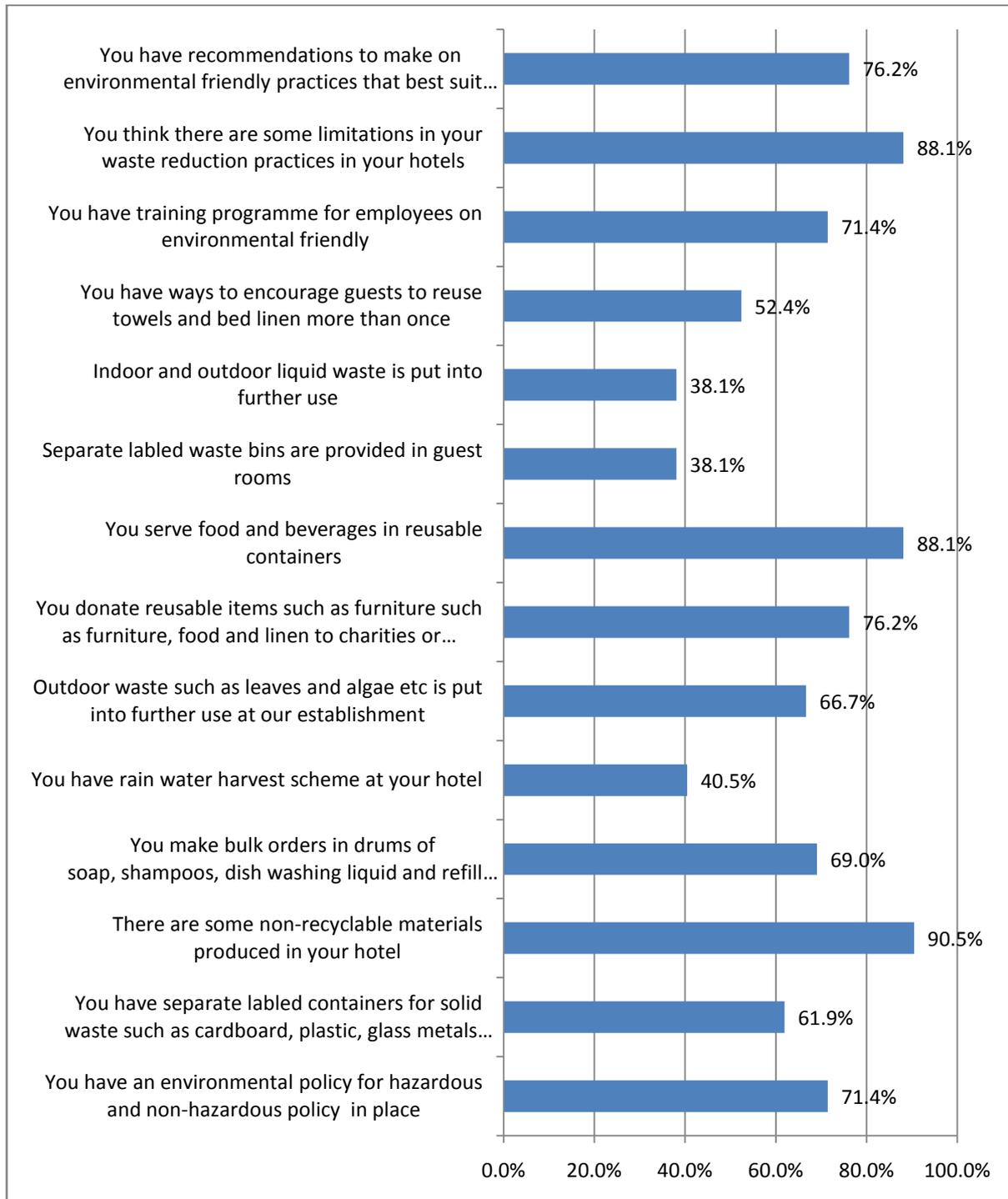


they do not put waste into further use. This suggests that most waste is sent to a landfill. 52.4% of respondents said they encourage guests to reuse towels and bed linen more than once. This suggests that more than half the hotels encourage their guests environmentally friendly practices to save water in their hotels. 47.6% said they do not encourage their guests to use towels and linen more than once. 71.4% said they have training programmes for employees on environmentally friendly practices. 28.6% said they have no training programmes for employees on environmentally friendly practices in their hotels. This suggests that in most hotels efforts are being made to ensure that employees grasp environmentally friendly practices. 88.1% said there are some limitations in their waste management practices in their hotels which include the fact that waste reduction is not being taken seriously by management and there are no policies on environmentally friendly practices. 76.2% said they have recommendations they have that best suit their hotel. These recommendations include the following: sending waste material for recycling, making use of renewable sources of energy. Waste bins should be separately labelled outside and in guest rooms. Other recommendations include educating and training workers on how to minimise waste, and adoption of a clear environmental policy by the hotel.

DISCUSSION

The results obtained from the study covered the research area addressed in the objective of the study namely to establish the current waste management initiatives in hotels in Zimbabwe.

The hotels that were studied claimed that they have environmentally friendly policies. Cortes, Azorin, Moliner&Gamero (2007:665) note that it would be advisable for hotels to work towards implementing a sustainable tourism policy to preserve their destinations and consequently their first competitive level. Accordingly environmental policies are important in a hotel. Some of the hotels said they procure large containers with shampoo and soap for customers and they use dispensers instead of small containers. However there are concerns that implementing green practices may impact service standards negatively. For example using shampoo dispensers may reduce waste, but this may be contrary to guest expectations (Kim & Choi 2013:160). It is argued that green practices such as using shampoo dispensers to reduce waste may give an impression of compromised service quality to customers (Kim & Choi 2013).



Majority of hotels that were studied do not have rain water harvesting schemes. This suggests that they do not use rainwater as an alternative water source. Rainwater that is harvested has been considered to be one of the most cost effective sources for irrigation, toilet flushing, car washing and clothes laundering (Ahmed, Gardner & Toze 2010:1). Some hotels indicated that there is non-recyclable waste material produced in their hotels and



these materials are most likely to be sent to a landfill. Sending waste to a landfill is a least favoured waste management option. In many developed countries they make it an obligation to reduce waste sent to a landfill by a considerable percentage (Emerym Davies, Griffiths, & Williams 2006).

Majority of hotels donate reusable items such as furniture, plates and linen to charity organisations, community and to employees as corporate social responsibility of business. This is supported by Bohdanowicz&Zientara (2008:273) who note that one dimension to corporate social responsibility is to make efforts to support local communities to help charities and to promote environmental sustainability. Most hotels that were studied indicated that they use biodegradable outdoor waste such as yard trimmings leaves and algae in making compost. Composting at hotel establishments is encouraged to process organic waste for use as natural manure in gardens (Swilling &Anneck 2006:324).

About half the hotels that were studied encourage guests to reuse towels and bed linen more than once. This is supported by (Kim et al., 2012:200) who assert that water can be conserved by encouraging guests to use their towels and linens for more than one day. This is done in an effort to reduce water and energy consumption. Majority of hotels have training programmes to train employees so that they can participate in environmentally friendly practices. This is supported by Goodman (2000:206) who notes that companies become more environmentally responsible through employee training and provide a framework for improving decision making from an environmental perspective. The majority of hotels have separate labelled bins for solid waste such as cardboard, metals and glass. This is important as different types of waste do not have to be put in one container or waste will become difficult to separate later.

RECOMMENDATIONS

The researcher recommends that hotels should be involved in environmentally friendly practices which include educating guests on how to manage waste during their stay in the hotel.

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