

Environmental Management Practice of Newly-Built Hotels in Western Province of South Africa

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Abstract:

Since customers, governments, and society as a whole are becoming increasingly concerned about the depletion of natural resources and environmental pollution, there is a growing trend to recognize the importance of green innovation in achieving sustainable growth. This research carefully observes the environmental practices of hotels constructed during the period 2005-2023. Hotels, as a sector in the tourism industry, contribute to the economy in most countries. However, their environmental impacts are related to climate change and should be regulated like any other industry. In light of this, the industrial ecology application in the hotel sector was investigated to improve environmental management practices. In order to accomplish this goal, a survey was compiled and sent directly to the environmentally liable individual of the hotel under investigation, who was selected through convenience sampling methods. The study focuses on the implementation of renewable and sustainable environmental principles and technology updates. The study's results showed that the main environmental practices to which the hotel sector pays attention are water (11.99%), energy saving (10.42%), waste reduction (10.42%), and separation and recycling (9.38%). The study concludes that a majority of hotels have implemented environmental sustainability through specific programs. On the other hand, the hotel sector needs to implement more renewable environmental and sustainable principles.

Keywords:

Environment, Environmental Management Practice, Hotel Industry, Western Cape Province.

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Introduction

South African tourism industry especially in the Western Province has grown significantly, and Cape Town has become one of the world's most visited tourist destinations (Dube et al., 2020). As a result of this growth, more hotels are being built to satisfy the growing demand. However, alongside the development of new accommodations, there is growing concern about the environmental impact of newly build hotels (Duric & Potočnik Topler, 2021; Gössling & Lund-Durlacher, 2021; Ndalnamu et al., 2024). Hotels consume substantial amounts of resources, including water, energy, and raw materials, and contribute to waste generation and pollution (Abdou et al, 2020; Mbasera et al., 2016). Hotels produce higher CO₂ emissions than other accommodation establishments like campgrounds, guesthouses, lodges, and self-catering apartments because more energy is needed to operate facilities such as bars, eateries, spar and swimming pools (Sucheran, 2013; Toshima et al., 2021). Sustainable environmental management practices in the hotel industry have become increasingly important (Khatter, 2023).

The rapid growth of the hotel sector in the Western Province of South Africa, driven by the increasing demand for tourism, has raised significant concerns regarding the environmental sustainability of newly-constructed hotels. Despite the positive economic impact of the tourism industry, the environmental consequences of hotel development including high energy consumption, waste generation, and resource depletion are often overlooked (Baloch et al., 2023; Rico et al., 2019). While some hotels may adopt green building practices and sustainable management strategies, there is limited research on the environmental management practices specifically implemented by newly-built hotels in the region. This lack of information poses a challenge for policymakers, developers, and stake-holders who aim to create a balance between economic growth and environmental responsibility. There is a critical need for a comprehensive assessment of these practices to ensure that future hotel developments in the Western Province adhere to sustainable environmental standards.

The main purpose of this study is to identify the environmental management practices of new-build hotels in the Western Cape Province of South Africa. The focus of the research is to examine the adoption and implementation level of environmental management practices:

1. Identify the key environmental management practices implemented by newly-built hotels
2. Assess the effectiveness of these practices in minimizing the ecological footprint of the hotels.
3. Highlight the challenges faced by hotel developers in integrating sustainable practices into new hotel constructions.

4. To improve environmental management practices in the hospitality sector, contributing to the long-term sustainability of the tourism industry in the Western Province.

Literature Review

Increases in the number of international tourists visiting Africa, the South African hotel industry maintain stable growth in five years to come. Revenue from the hotel accommodation sector increased to R16.7 billion in 2018, an increase of 0.5% over 2017. Hotel room revenue was expected to grow at a compound annual growth rate of 7.8% to R20.6 billion by 2020 (PwC, 2017). South Africa is one of the amazing African countries, offering a fascinatingly rich history, its clean beaches, lush subtropical vegetation, abundant wildlife, high-energy cities, vast and arid desert plains, friendly people, and spectacular natural beauty.

The number of available rooms is expected to increase at a compound annual growth rate of 0.9% from 61,200 in 2016 to 63,900 in 2021. It is estimated that by 2021, the compound annual growth rate of tourist accommodation will increase from 13.7 million in 2016 to 1.8% to 15 million, and the occupancy rate will increase from 61.2% in 2016 to 64.3% in 2021 (PwC, 2017). The growth of the hotel sector has negatively affected environment for the past few years (Scanlon, 2007) identified problems and future concerns for the international lodging industry. In 1993, the (IHEI) launched an initiative to green the hotel industry (Holden, 2003). Many green movements have emerged, and many hotels' environmental efficiency has increased, enhanced their corporate image, and reduced their operational costs (Han et al., 2011).

In South Africa, the green initiative was launched by the (FEDHASA), which was founded in 1949. FEDHASA implemented the Imvelo Responsible Tourism awards to coincide with the (WSSD) in 2002. The Imvelo Awards recognize businesses in the travel and tourism industry that have made important, quantifiable, and continuous contributions to the travel industry and can be consumed in a more responsible manner (FEDHASA, 2017).

Establishments that meet the requirements for fair and responsible tourism practices are granted accreditation by the FTTSA. The (FTTSA) assists businesses in the travel and tourism industry to accept sustainable environmental practices through the use of custom-designed benchmarking toolkits. The FTTSA certification program endorses tourism establishments that meet stringent criteria after undergoing a stringent independent third-party audit (FTTSA, 2017). The FTTSA logo can now be used on more than 60 tourism establishments in South Africa.

Heritage Environmental Management was established in 2001 as an initiative to rate hotel in South Africa. The Heritage Environmental Certificate Program assists tourism businesses in Africa and South Africa to practice sound environmental management and decrease the environmental impact of their

operations. The Sandton Convention Centre was the first establishment to be certified in 2002, which coincided with the 2002 Earth Summit in Johannesburg (Heritage, 2018). There are more than 120 establishments in South Africa that are members of Heritage Environmental Programs and have achieved heritage status for environmental awareness and commitment.

Fast-increasing tourist numbers globally have resulted in the rapid development of hotel sector, increasing the consumption of natural resources. The environmental performance, environmental management, and operational practices of the tourism industry are an integral part of today's lifestyle (Siyambalapitiya et al., 2018). The entire tourism industry, especially the hotel sector is under enormous pressure to adopt environmentally friendly and long-term management practices (Sun & Nasrullah, 2024). The sound environmental management practices of these hotels tend to cease after they have been provided with environmental licenses and permits (Fuentes-Moraleda et al., 2019). To resolve the issue of hotel-related environmental degradation in South Africa, it is important to determine if the hotel has established an environmental policy and implemented good environmental management practices (Mbasera et al., 2018; Omune et al., 2021).

In the 1980s, environmental conservation became a new and significant subject. In the early 1990s, more and more companies adopted environmental management (Mensah, 2006). (DEA) declares that its responsibility is to maintain and improve the environment and its natural resources. Nel & Kotze (2009) describe environmental management "as a management technique aimed at influencing or modifying the actions of people in their community, with the goal of controlling the impact of people's behaviors, goods, and services on the environment, as well as being enshrined in environmental law". Environmental management, according to Best & Thapa (2011), requires steps taken to protect the environment from human-caused harm in order to preserve resources over time. These authors also reported that, internationally, environmental management has played an indispensable role in enterprises over the past few decades and is the core value of enterprises. Environmental management is described in this study as a continuous process that is enforced by management decisions and involves monitoring a hotel's activities and implementing appropriate programs and activities to minimize negative environmental impacts.

Method

Data Collection

There are two types of data sources in this study: primary data and secondary data sources. Primary data was mainly collected from the structured questionnaire, then print it out, pass it to the hotel manager, and receive feedback through the collection channels to get a 100% response. A study of a newly constructed hotel in the Western Cape Province provided data on environmental management

practices. The researcher was assisted by various tourism organizations (WESGRO, TGCSA and FEDHASA) to acquire current and valid information on newly built hotels. Through self-administered questionnaires quantitative data was collected. The aim of the questionnaire was to gather information on hotel managers' environmental management practices. Questions related to hotel ownership type, hotel classification, services offered, sustainable practices within the hotel, and the managers' views of environmental management, as well as related policies. Environmental management activities were classified environmental conservation, environmental initiatives and support, information support, financial support, and legislation. The city of Cape Town, located in the Western Cape, serves as the primary focus for studying. Cape Town has experienced rapid growth in the hospitality sector, making it a key area for examining how new hotels address environmental challenges. Fieldwork began in June 2023 and continued for six months. Most questionnaires were completed timeously by hotel managers although some had to be reminded to complete the questionnaire. Some of the 32 identified hotels were not operational because of refurbishment but 23 hotel managers duly completed the questionnaires. An analysis instrument Statistical Package for the Social Sciences (SPSS) version 25 was used to evaluate the collected data. The analyzed information was presented in tables and graphs.

Results and Discussion

Table 1 shows the findings of the report, which indicate that among the hotels examined, city hotels made up (63.64%) of the total, the hotel normally located in urban areas, usually reserved for visitors who intend to stay a while. Apartment-type hotels accounted for (18.18%) a residential hotels provide guests with long-term or permanent accommodation, boutique hotels comprised 9.08% these establishments often offer offering less than a dozen rooms with excellent service and interior decoration in historic buildings, resort hotels made up (4.55%). These hotels are usually located in the mountains, in peculiar locations far away from the city, while airport hotels account for 4.55% of the total. These types of hotels usually target business customers, airline passengers who stay overnight or cancel flights, and airline staff or crew. The largest component of the survey sample was 4-star hotels (40%), followed by 5-star hotels (35%) and 3-star hotels (25%). The higher the level of the hotel, the greater the opportunity to participate in environmental management practices.

Types of hotels		Number of hotel rooms	
City hotel	63.64%	Few than 20	9%
Boutique hotel	9.09%	20-50	22%
Apartment hotel	18.18%	50-100	20%
Airport hotel	4.55%	100-250	24%
Resort hotel	4.55%	251 or more	25%
Hotel rate		Integrated hotel	
3 star or less	25%	Yes	58%
4 star	40%	No	42%
5 star	35%		
Gender of respondent		Position of respondent	
Male	51%	Environmental manager	46%
Female	49%	General manager	24%
		Marketing manager	20%

Table 1: Respondent's characteristics (Source: Author's own construct, 2024)

According to Kotuwage et al (2020) and Alvarez et al. (2001), high-category (4 and 5 star) hotels have more opportunities for environmental protection than low-category (1, 2 and 3 star) hotels. Moreover Pham et al (2020), managers of large hotels (such as 3 to 5 star and chain hotels) are more likely than managers of small hotels to reap positive public image gains from environmental management (such as below 2 stars and independent hotels). Most are financed by owners or family and is directly managed by family. Their management is not well structured, unskilled workers, unmotivated, managers usually do not have knowledge or awareness on environmental management and they don't have enough resources to implement environmental management practices that will yield benefit over a medium to long period of time. Whereas larger hotels (3 to 5 star) chain affiliated hotels have management structure in place and environment quality standards to obey. The results indicate that (25%) of the sample had up to 250 rooms and (24%) had capacity of up to 100 rooms. The larger hotels which had more than 251 rooms constituted (20%) of the sample, while hotels with a room capacity up to 50 rooms comprised (22%), and (9%) of the sample had up to 20 rooms. Males made up more than half of the managers (51%), with females accounting for the remaining (49%). The hotel industry is dominated by women, with 55.5 percent of the workforce being female, but it is run by men, as women are often found in roles that are stereotypically associated with their gender, such as sales directors, housekeeping, and marketing (Marinakou, 2014). The results also show that (73.91%) hotel is integrated into hotel chains and (26.09%) are not hotel chains.

The most notable barriers were those which reduced the ability of hotel managers to implement adequate environmental management practices. Figure 1 show that the main barrier to environmental management practices was hotel guests' lack of environmental awareness (40%). The results identified other important financial barriers such as slow return on investment (36.8%) in additional lack of financial resources (14.3%). Lack of information sources was not considered a significant barrier to the

introduction of environmental management practices (14.3%), nor was implementation and maintenance costs (14.3%).

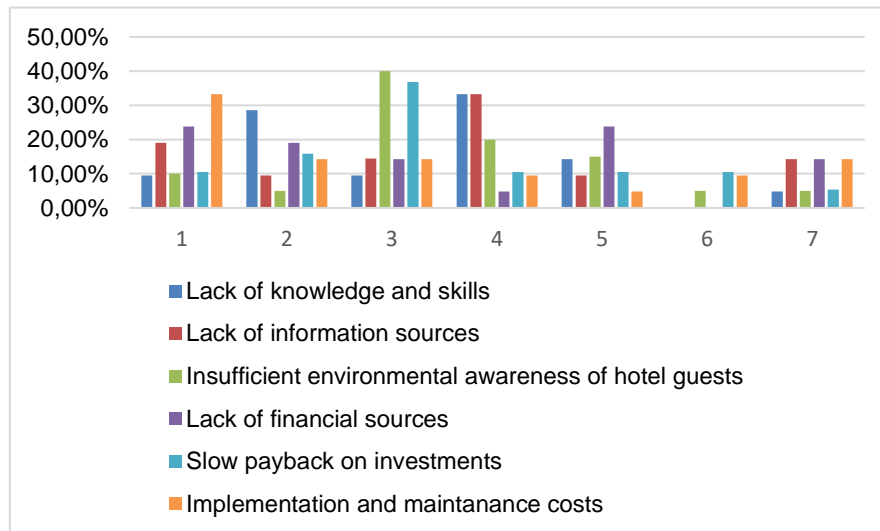


Figure 1: Barriers to introducing environmental management practices (Source: Author's own construct, 2024).

Figure 2 illustrate the engagement of hotel managers in environmental management practices which are highlighted in their hotels' environmental policies. Of the total sample, (12.0%) of hotel managers identified water savings as the most commonly implemented environmental practice. Rainwater collection was practiced by (3.6%) of hotels in an effort to save water. Rainwater can be used for non-potable water demands such as flushing toilets, laundry washing machines, irrigation, cooling towers or general cleaning purpose. The results indicate that (10.4%) of the sampled hotels have implemented energy saving practices, (8.3%) have light-saving programs in place by using energy efficient light bulbs, and (6.8%) employ heating and air conditioning saving practices. According to Diaz-Farina et al (2023) and Juvan et al (2023), by implementing and following a waste management system, the amount of waste generated by the hotel industry can be reduced. Results below also indicate that (10.4%) of the sampled hotels practice waste reduction and (9.4%) practice waste separation and recycling.

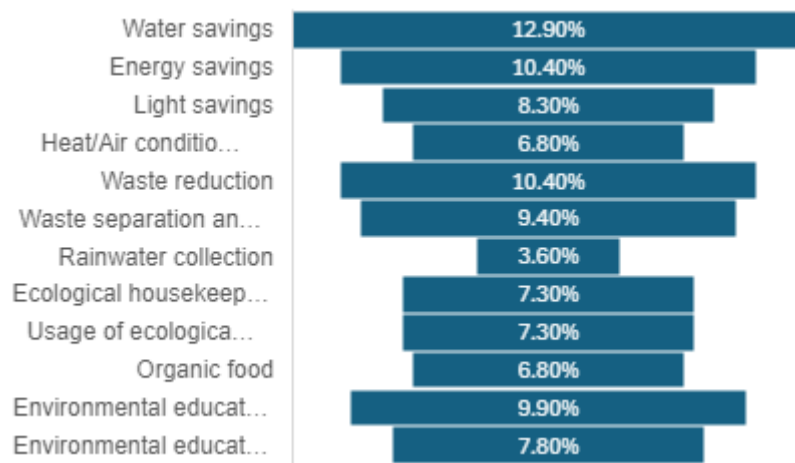


Figure 2: Implemented environmental practices in hotels (Source: Author's own construct, 2024)

Pham et al (2020) state that employee training and environmental issues must be addressed. Green practices commonly contained in the hotel environmental policies include environmental education of staff and the results indicate that (9.9%) of hotel managers are committed to implement education and training programs for guests, while (7.8%) of hotels endeavor to educate hotel guests on environmental issues. Both employees and hotel guests are integral to successful implementation and ongoing sound environmental practices in the hotel sector. Furthermore, the results show that (7.3%) of hotels use eco-friendly housekeeping and cleaning materials for example reuse, recycle, do not use chemicals or use chemicals safely, clean green, invest in green equipment, etc., usage of ecological materials (7.3%) materials that can improve the environment and maintain good performance throughout the life cycle, and (6.8%) serve organic food that is produced without the use of food additives, chemical pesticides, genetically modified and antibiotics.

There is a lack of support from the South African government for initiatives to encourage hotels to adopt good environmental management measures. The results in Figure 3 show that (22%) of hotels have no government support, (39%) have very little support, and (18%) of hotels receive a little support from government. A mere (17%) of the sample indicated that they receive significant support from government and a further (4%) received excellent support. Since the implementation of environmental management practices is voluntary, government does not assist the hotel sector to implement an environment-friendly framework.

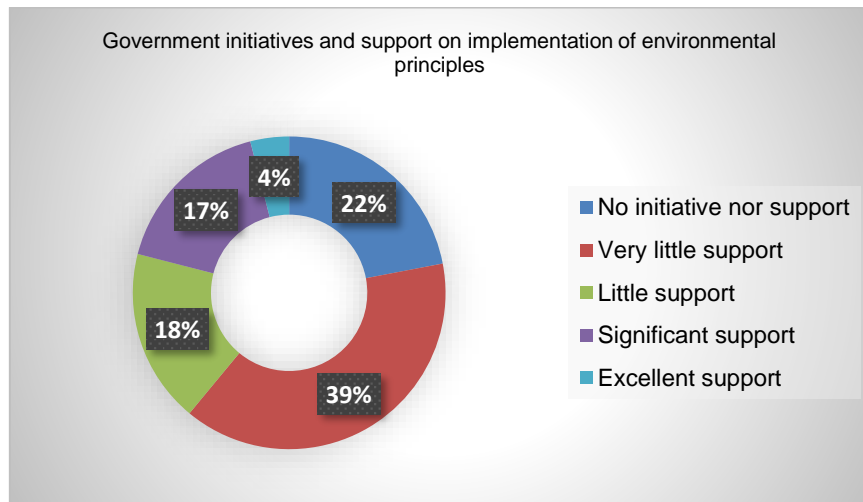


Figure 3: Support from government for hotel environmental management initiatives
(Source: Author's own construct, 2024)

A number of previous studies (Fukey & Isaac, 2014; Zengeni et al., 2014) have shown that while hotels are concerned with environmental management problems, many do not hands-on enough in their response and prefer to implement management initiatives that will financially benefit their business. Their main focus is to cut costs by minimizing energy use and water consumption as this contributes towards hotel profit. Hotel managers are hesitant to take ownership of environmental management practices. Government is not supporting environmental management initiatives financially and there are no policies in place to enforcement environmental management.

Conclusion

In the tourism industry, especially in the hotel industry, environmental management practices are of global importance. The aim of this study was to look at the environmental management practices of newly constructed hotels in the Western Cape Province and see if there were any gaps in the steps taken and how they were implemented. The environmental impact of the tourism industry on natural resources has led to the implementation of a number of initiatives and programs aimed at sustainable and responsible tourism. The results of this study show that hotel managers are aware of environmental management issues and pay attention to various practices. The most common environmental management practices are water savings (11.99%) (water can be saved by harvesting the run-off from a structure or other impervious surface in order to store it for later use), energy savings (10.42%) (energy-efficient lighting, smart HVAC systems, water heating & conservation, building automation systems (BAS), renewable energy sources, energy-efficient appliances, insulation & building envelope, renewable energy integration, staff & guest engagement and monitoring & analytics), waste reduction (10.42%) (reduce food waste, minimize single-use plastics, recycling programs, sustainable

procurement, reuse strategies, waste audits & monitoring, composting initiatives, guest engagement, staff training and event & conference management), environmental education of staff, waste separation and recycling (9.38%) (implement a waste separation system, train staff, guest engagement, collaborate with local recycling facilities, focus on specific waste streams, use technology to enhance recycling, monitor and report and incentivize and innovate). However, if the hotel collects rainwater, it can save costs, which is less practice of (3.65%). The results indicate that hotels pay no attention to rainwater collection. For waste management companies participating in recycling, hotel managers must have separate trash bins to collect paper, plastic, and bottles to make it easier.

Hotel managers are encouraged to implement environmental management practices since they believe it reduces costs. Managers need training on purchasing of goods, recycling of waste, water and energy saving, government environmental requirements, and national environmental policies that are regularly reviewed and updated. These systems can properly educate hotel managers about their obligations and assist them in implementing effective environmental management programs. Although environmental management is not totally neglected by the sampled hotels in Western Cape Province, it does not receive priority attention. However, Western Cape Province does have a number of hotels that practice sound environmental management and the Verde Hotel is known as the greenest hotel in Africa. The hotel sector needs to implement more renewable environmental and sustainable principles.

In conclusion the study manages to establish aim and objectives, there are limitations which were encountered. Future works can therefore be expanded following the gaps in this research. The study was done with a focus on newly build Western Cape Province hotels only, therefore the results cannot be generalized to the entire hotel sector. The sample used in this study was small, thus further research which includes other hospitality establishments should be done. The explanation why certain hotels are more hands-on than others was not addressed in this report, and it is something that should be investigated further. Further research into how hotels can recycle waste, save water, and save energy is also needed in order to assist hotels in reducing their natural resource use and saving money. Further studies must be carried on technological environmental management practices in hotels involve adopting eco-friendly innovations to minimize environmental impact while maintaining high service standards. These practices include energy-efficient systems, smart water management, and waste reduction technologies such as automated recycling. Finally, it's important to figure out what influences hotel managers' views on environmental management and the effects of hotels on communities.

Author

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