



Exploring The Benefits Of Green Building Strategies In A Three Star Resort Hotel

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ABSTRACT

Tourism has emerged as one of the world's fast-growing industries despite its economic contribution, tourism growth and activities have side effects. Tourism related activities have caused pollution, generated a large amount of waste and natural resource depletion. This has changed the business operations landscape by altering their business methods and daily operations, including turning towards green practices. In this study, we aim to investigate environmental management representatives' perceptions regarding the extent of the contribution of green hotel practices to achieving the environment-related sustainable development goals (SDGs). To provides valuable practical implications for green hotel operators to develop effective strategies to attract tourists to green hotel visits. According to the Green Hotels Association, green hotels are lodging establishments that perform various eco-friendly practices to reduce operational waste and costs. The green hotel concept attributes include the efficiency in utilizing water, energy and natural resources; natural lighting and ventilating; using recyclable based materials for furnishings; and offering environmental information to increase the environmental awareness of their guest. The main implication of this study is that hotel operators should properly incorporate green hotel practices into their operational plans to achieve the environment related.

Keywords: sustainable development goals; environmental practices; sustainable tourism; green hotel; eco-labeled hotel.

INTRODUCTION

Recently, tourism has experienced increased development and expanded diversification, and it is becoming one of the fastest developing financial sectors around the world. These dynamics have turned the industry into a pivotal driver of socioeconomic advancement in all nations worldwide, contributing to more than 10% of the gross domestic product.

Tourists with more significant environmental concerns are likely to spend on a green hotel than those less environmentally concerned (Hou and Wu, 2021). A considerable environmental concern would influence pro-environmental intention by opting for ecological products and willingness to pay (WTP) higher than ordinary non-environmentally friendly products (Holmgren et al., 2017). Environmental concern is a critical determinant of tourist behavior in visiting green hotels (Hou and Wu, 2021). Moreover, tourists are aware that tourism-related industries, including building, travelling and purchasing, contribute to the degradation of the environment on a large scale (Ahmed Hassan Abdou, Thoway Hassan Hassan and Mohammed Mustafa El Dief, 2020). Hence, this study assumes that tourists' environmental concern is essential in deciding to stay and visit a green hotel. The growing impact of the tourism industry as an economic force and its potential as a development tool are indisputable. At the present time, tourism is widely recognized as the key to accomplishing the United Nations' 17 sustainable development goals

(SDGs) and the 169 associated targets. Tourism has been considered to be one of the main sectors in developed and developing countries. It plays an important role in creating job opportunities, in the eradication of poverty, in promoting gender equality and in the preservation and promotion of natural resources; furthermore, it strengthens peaceful relations all over the world. In the Rio 20 Outcome Document, tourism was identified as one of the vital sectors that is able to make a major contribution to achieving the three pillars of sustainable development (social economic environmental), and it has been recognized by the United Nations (UN) as one of the 10 sectors which has the capacity to turn communities towards a Green Economy. Green practices as defend by (Teng et al, 2016) include promotion of hotelier's efforts to reduce solid waste, save water and energy, reduce operational costs and protect the natural environment. With regard to hotels, green practices are programs which are eco-friendly and are promoted to improve the hotel's image (Dwivedi et al., 2022 ;). They are geared toward lessening negative environmental impacts (AlShourah, 2017 ;) that eventually guarantees hotels' long-term success (Nojacks 2021). Energy efficiency procedures, solid and liquid waste management practices and water conservation are the three domain areas in hotels where green practices are more significantly exhibited (Muhammad Ashraf Fauzi, Mohd Hafiz Hanafiah and Velan Kunjuraman, 2022) add that green practices are environmentally friendly practices that encourage hoteliers to set up programs that are meant to conserve and promote the health of the environment. It should be noted that hotel industry is responsible for substantial environmental degradation upon the planet (Han et al., 2020) and this is incurred through enormous use of energy, water and producing a lot of waste as a result of unceasing hotel operations (Han et al., 2018). Reason that hotel business activities contribute significantly to environmental degradation through the products and services they provide.

Estimations from UNEP and World Tourism Organization also indicate that in the United States of America (USA), the hospitality industry consumes 946 million cubic millimeters per year, and 60% of this is linked to lodging operations in form of guest consumption, laundry activities and guest services (United Nations Environment Programmed and World Tourism Organization, 2015). It is important that efficient management of internal water programs and investment in water-saving technologies would lead to a reduction in the recurring costs incurred by hotel owners and at the same time leading to environmental sustainability (Kasim et al., 2014), affirm that implementation of green practices reduces waste and promotes environmental health. Therefore, green practice implementation has the ability to reduce undesirable climate change effects, such as global warming, and it is also able to improve environmental productivity and human well-being (Noah, 2023)

The present study aims to extend the body of knowledge within the broader scope Benefits of Green Building Strategies in A Three Star Resort Hotel underpinned by the psychosocial factors of the theory of planned behavior and the norm activation model (NAM). Specifically, we empirically test the relationship between the two theories with environmental factors and perceived morals to present a holistic framework within the study context. This study contributes to the extant literature on green hotel visit intention in the future context of hotel business operation and its potential benefits in achieving the environment-related sustainable development goals especially those related to clean water and sanitation affordable and clean energy and responsible consumption and production

Aim of Study

The aim of the study is to explore and evolve the most appropriate strategy towards application of green building principles in a Three Star Resort hotel design.

RESEARCH METHODS

The research method used in this project includes qualitative and descriptive case study research methods. Primary data for the study includes information from direct sources such as. Direct interviews and enquiries from hotel users and management. Carrying out site visits for on the spot observations and direct observation on existing facilities. Taking photographs of such visited existing facilities and producing diagrams for illustrative purposes of such. Secondary data is generated through the following:-

Use of existing literature from textbooks, publications, magazines, and unpublished materials. Use of the internet for further information and Data collection. Internationally recognized and accepted research encyclopedia, and Policy documents.

FINDINGS

Most Resort Hotels rely on artificial means of ventilation and lighting. When there is power failure the whole place becomes very uncomfortable for the guest, also artificial ventilation and lighting increase the cost of the project. The research will attempt to solve these problems by designing, exploring and applying the most appropriate strategy towards application of green building principles in a Three Star Resort hotel design.

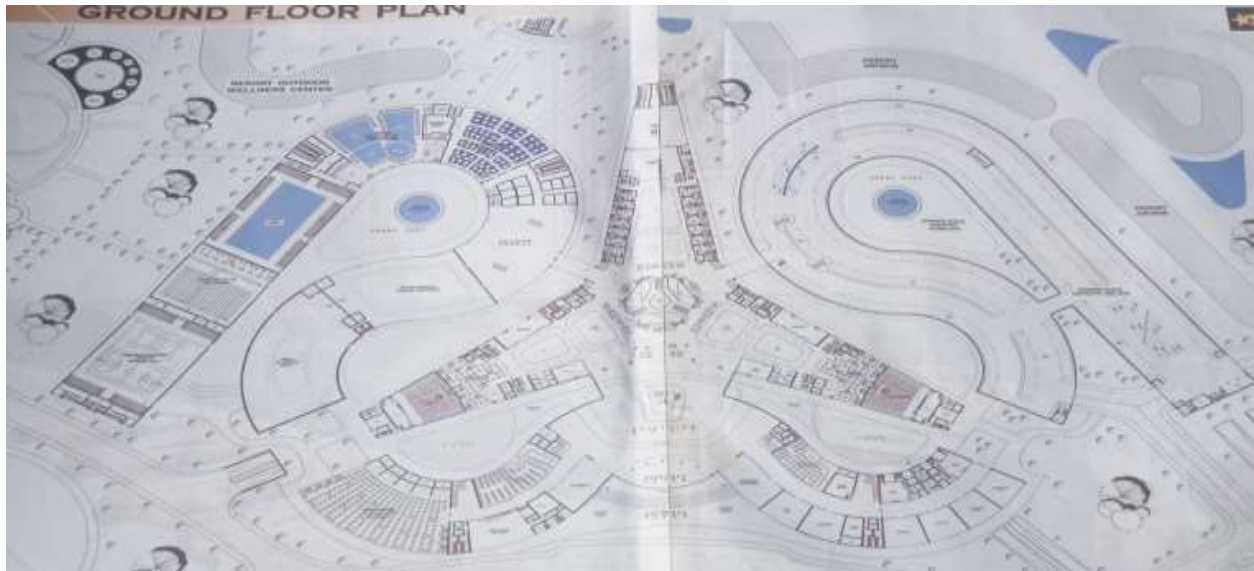


Plate 1: Site plan of a three Star Resort Hotel designing, exploring and applying the most appropriate strategy towards application of green building principles in a Three Star Resort hotel design

Source: authors field work (2022)

Green Hotel Practices and Environmental Sustainability

The hotel industry is one of the various components of tourism whose activities cause a serious threat to the environment owing to its huge consumption of water, energy and non-durable goods along with the discharge of large amounts of raw and solid waste in various quantities. If these resources are not managed properly, they will have a negative impact on the environment and the operating costs of an organization. Consequently, many hotels have begun implementing various innovative practices to increase the “greenness” of their operations in order to eliminate their environmental pressure in addition to responding to growing customer environmental concerns. The growth of customers’ attention towards environmental sustainability has encouraged hoteliers to transform their businesses by implementing green practices in their operations which help them in achieving a competitive advantage and increasing their market share through acquiring guest segments that are concerned with green sustainability.



*Plate 2: ground floor plan of a three Star Resort Hotel Oguta, Imo State, Nigeria.
Source: authors field work (2022)*



Plate 3: Aerial Views showing a three Star Resort Hotel Oguta Sports Area

Source: authors field work (2022)

Green practices in the hotel industry mainly include saving energy, reducing water consumption and waste management and reduction.

(a) Energy Conservation Measures

Energy reduction has been recognized as one of the most significant areas of environmental management in the hotel industry. Generally, hotels consume huge amounts of fossil fuel energy and electricity in different operational areas. Based on the literature reviewed, different energy conservation measures in the hotel industry have been adopted. These measures include implementing renewable energy programs (i.e., solar and wind power), installing energy-efficient appliances and equipment, controlling guestroom energy consumption by using digital thermostats, use of energy star-qualified products, installation of motion sensors that automatically turn lights off in low-traffic areas, installation of reflective glass or triple-glazed windows, using energy-efficient light bulbs (LED) and depending on daylight rather than artificial light when cleaning vacant dirty rooms .

(b) Water Conservation Measures

Water conservation management has been used widely as an important green management strategy in the hotel sector. Hotels consume intensive amounts of water on daily operation. Water consumption in the hotel industry depends on the hotel's size and capacity, occupancy percentage, type and standard of services and facilities provided. Water conservation measures adopted by the hotel sector include installing water-efficient devices and appliances (e.g., using low-flow toilets and showerheads and installing infrared-activated faucets), implementing towel bed linen reuse programs, fixing leaks in toilets and baths regularly, watering grass and plants early in the morning and late at night to limit evaporation, recycling the grey water (water from washing vegetables and fruits) for grass irrigation and monitoring the water consumption in each department to track usage.

(c) Waste Management

Measures The hotel industry is regarded as a major contributor to greenhouse gas emissions by generating a huge amount of wet waste (e.g., garden waste, food waste and cooking oil waste) and dry waste (e.g., cardboard, plastics, cans/metal, linen, paper and other garbage) that is transferred into landfills. Consequently, hotel operators began adopting various practices that aim at reducing hotel wastes as follows: separating hotel wastes by using clearly labeled containers and colored bins for collecting recyclables, purchasing products containing recycled content, collecting organic kitchen wastes separately for soil composting, purchasing food items and cleaning chemicals in bulk, adopting a donation program (donating food leftovers and linens to charity) and grinding the remaining guest soaps to use as laundry detergent.

RESULTS AND DISCUSSION

Benefits obtained by Three-star Resort hotels as a result implementing green practices

A host of benefits accrued as a result of enforcing green practices in hotels. Some benefits to the hoteliers as reported by respondents include increased profits. The finding is in agreement with some authors like Abdou *et al.*, (2020) and Deraman *et al.* (2017), who stated that, green practices' implementation by a firm leads to financial savings and enhances the firm's revenue and profits. Lin and Ho (2010) further state that when hotels promote and adhere to sustainable practices, greater and long-term financial stability is realized which leads to greater profitability. Furthermore, Sujaya *et al.* (2019) state that green businesses that are being embraced by developing countries have enabled them achieves greater profits. In addition, it was reported that green practice's implementation culminated into competitive advantage to the practicing firms. This is consistent with some studies carried out in Romania by Abrudan *et al.* (2020) who stated that promotion of green practices in hotels culminated in the reduction in energy and water consumption which made them more competitive. In the same country, Foris *et al.* (2020) documented that when environmentally sound practices are adopted in the hospitality industry, the hotels become very competitive. In Colombia, the study conducted by Moise *et al.* (2021) stated that green practices promotion enhanced hotels reputation in addition to being very competitive. In Kenya, Murimi (2020)

found out that green practices promotion in hotels contributed to their reputational improvement together with helping them gain a competitive edge among those that did not implement green practices. Other authors like Van der Werf. (2019) noted that implementing environmentally friendly practices produces significant positive effects which are able to enhance competitive advantage. Further still, Rogerson and Sims (2010) affirmed that when firms implement the use of green practices, they become more competitive since members of the public expect the firms to comply with desirable environmental attributes. Abidou et al. (2020) noted that implementation of green practices by firms increases its relationships with the stakeholders which eventually expands on the existing market share.

ii. Cost savings on materials used in the hotels were another benefit obtained by implementing green practices. Related to the findings, Moise et al. (2021) and Aripin et al. (2018) documented that adoption of green practices is a means of proactive environmental management that leads to cost savings on the materials used. Furthermore, Abdou et al. (2020) stated that one of the benefits of implementing green practices is saving on the operation costs incurred by a firm that culminates into its financial stability.

iii. Adopting environmentally friendly practices in the hotel has helped us to reduce on the unnecessary costs like energy, water and waste management costs. It has also enabled us attract and retain both local and international guests who advocate for eco-friendly environment. In this way, we have been able to have a competitive advantage over those hotels that have not implemented green practices. A Chi-square test was performed to determine whether there was any association among the benefits obtained by the management of the Three-star Resort hotels that implemented green practices. The results showed that there was an association among the benefits obtained by the management of the Three-star Resort hotels who implemented green practices

Effect of undertaking green practices on the performance of the selected Three Star Resort hotels

From the results so far obtained, it has been revealed that the implementation of green practices culminated into a host of benefits like increased profits and others. The study further set out to determine the extent to which each green practice that was implemented contributed to the overall benefits and hence performance of the Three-star Resort hotels. Regression analysis was performed on the green practices implemented, and the result shows that waste management alone had no significant contribution toward the performance of the Three-star Resort hotels. In relation, energy conservation, water conservation and environmental purchasing all had a significant contribution toward the performance of the Three-star Resort hotels. However, the overall results indicate a weak correlation brought about by the study variables, toward the performance of the Three-star Resort hotels. This is probably because, other factors like customer care (Abdou et al., 2020) and quality of the accommodation facilities (Moise et al., 2021)) and other incentives which were not considered under this study could have affected the performance of Three-star Resort hotels in one way or the other. Hence, different green practices including energy conservation, environmental purchasing, waste management and water conservation were implemented by the Three-star Resort hotels in Oguta. The green practices' implementation realized a tremendous number of benefits to the hoteliers. The benefits include increased profits, cost savings on materials used, competitive advantage and improved customer care among others. A weak correlation between the implemented green practices and the performance of the Three-star Resort hotels was exhibit.

CONCLUSION

It is noted that the tourism and hotel industry is interdependent with the surrounding nature. The need to properly manage the hotel industry is vital to minimize environmental damage. This paper has reviewed and examined: Statistics on tourism and the hotel industry in Sustainability and green development. Environmental policy development in Green development in the hotel industry: Drivers towards green shift, green consumer demands, green hoteliers, environmental management system and operation, and finally barriers faced by green hoteliers. It details out the development of green effort in the hotel industry and environmental policies that supports it.

RECOMMENDATIONS

The research was conducted only on Three-star Resort hotels and not on the other types of hotels in the country. Other hotels like Four-star, Five Star and some other hospitality firms should in future be considered in order to gain a deeper understanding of green practices' implementation across the entire hospitality industry.

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