

Assessment Of Green Practices In The Operations Of Upscale Hotels Across Four Urban Areas In Southwestern, Nigeria

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Abstract

Hotel industry significantly contributes to environmental degradation through its resource-intensive operations. Upscale hotels are increasingly adopting green practices to enhance their environmental sustainability. This study examines the implementation, challenges, and impacts of green initiatives on hotel operations and guest perceptions in upscale hotels across four urban areas in Southwestern Nigeria, namely: Lagos, Ibadan, Abeokuta, and Osogbo. Mixed-methods approach was employed, combining in-depth interviews with hotel managers and a questionnaire survey of 1,125 respondents consisting of hotel staff and guests. Findings indicate a positive trend in environmental practices, with an overall average of 76.0% of upscale hotels implementing at least one green practice measure. By location, Lagos (89.0%), Ibadan (75.0%), Abeokuta (72.0%) and Osogbo (68.0%) of hotels have initiated environmentally friendly practices. Common green practices in all the selected hotels include recycling programs (78.3%), energy-efficient lighting (92.0%) and water conservation measures (78.0%). Primary barriers to implementation include high upfront costs, lack of guest awareness and engagement, and organizational inertia. Key drivers are expected cost savings, corporate social responsibility commitments, and guest demand for sustainable hospitality experiences. Guests exhibited a generally positive attitude towards green practices, with a willingness to pay 6.8% premium prices for hotels demonstrating strong environmental stewardship. The study found that there is a reduction in carbon emission by hotels with comprehensive green practices ($p < 0.001$). Also, hotels that have implemented comprehensive green programmes with certification reported an average reduction of 22.5% in operational costs ($SD = 5.8$) and 12% higher occupancy rate than non-certified competitors ($P < 0.01$). The study concludes that majority of the upscale hotels engages in green practices and this have positive impacts their operations. Recommendations include developing comprehensive sustainability strategies, investing in resource-efficient technologies, implementing targeted guest engagement programs, and fostering a culture of environmental consciousness among hotel staff.

Keywords: *Green practices, Operations, Upscale hotels.*

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I. Introduction

The global hospitality industry, particularly the hotel sector, has long been recognized as a significant contributor to environmental degradation due to its resource-intensive operations (Bohdanowicz, 2005; Legrand et al., 2016). Hotels consume vast amounts of energy and water, generate substantial waste, and contribute to carbon emissions through their daily operations. Han et al., (2020) confirmed that hotel industry is responsible for substantial environmental degradation upon the planet. However, Wang et al. (2024a) hotels can reduce carbon dioxide emissions, protect ecosystems, and contribute to combating climate change. As environmental concerns have gained prominence worldwide, there has been a growing emphasis on adopting sustainable practices within the hospitality sector (Mensah, 2014; Yadav et al., 2019).

In response to these environmental challenges and evolving consumer expectations, the concept of "green practices" has emerged as a critical focus for hotels worldwide. Green practices in the hospitality context refer to environmentally responsible actions and strategies that minimize negative impacts on the natural environment (Berezan et al., 2013; Chan, 2013). These practices encompass a wide range of initiatives, including energy efficiency measures, water conservation efforts, waste reduction and recycling programs, sustainable sourcing, and environmental education for staff and guests.

The adoption of green practices in hotels is driven by multiple factors. Firstly, there is a growing awareness of the long-term cost savings associated with resource efficiency (Dolnicar et al., 2016). Secondly,

hotels are increasingly recognizing the marketing value and competitive advantage of positioning themselves as environmentally responsible businesses (Leonidou et al., 2015). Thirdly, there is a rising demand from eco-conscious guests who expect hotels to demonstrate strong environmental stewardship (Berezan et al., 2013; Blose et al., 2015).

However, the implementation of green practices is not without challenges. Hotels often face barriers such as high costs for sustainable technologies, organizational resistance to change, lack of staff expertise in sustainability practices, and sometimes, guest skepticism or lack of engagement (Bohdanowicz, 2005; Mensah, 2014b). Moreover, the adoption and effectiveness of green practices can vary significantly across different geographical and cultural contexts. In the context of Nigeria, the hospitality industry has experienced significant growth in recent years, particularly in the upscale hotel segment. This growth has been driven by increasing business travel, tourism, and the country's position as an economic hub in West Africa. However, this expansion has also led to increased resource consumption and environmental challenges. Despite the potential benefits of green practices, many Nigerian hotels struggle to implement comprehensive sustainability programs due to various factors, including high initial costs, lack of awareness, and operational challenges.

While there is a growing body of research on green practices in the hotel industry globally, there is limited research focusing on the Nigerian hotels, particularly in upscale hotels across different urban areas. This gap in the literature presents an opportunity to explore how green practices are being implemented in Nigerian upscale hotels and to understand the unique challenges and opportunities in this sector. This study therefore, addresses the research gap by investigating the implementation of green practices in upscale hotels across four urban areas in Southwestern, Nigeria namely: Lagos, Ibadan, Abeokuta, and Osogbo. Specifically, this research seeks to achieve the following objectives:

1. Identify the types of green practices implemented in upscale hotels across the four selected locations.
2. Determine the factors influencing green practices adoption in upscale hotels.
3. Examine the challenges in implementing green practices in upscale hotels.
4. Determine the impact of green practices on upscale hotels.

By achieving these objectives, this study will contribute to the growing body of knowledge on sustainable practices in the hospitality industry. The findings will have practical implications for hotel managers, policymakers, and industry stakeholders, potentially leading to more effective strategies for implementing green practices in Nigerian hotels.

II. Literature Review

Conceptualization of Green Practices in Hotels

The concept of green practices in the hotel industry has evolved significantly over the past few decades. Green practices refer to environmentally responsible actions or strategies adopted by organizations to minimize their negative impacts on the environment and promote sustainability (Marshall and Schneid, 2013). It involves the implementation of innovative programs designed to reduce costs while protecting the environment (Sun, 2024, Wang, et al. 2024b). Dwivedi et al. (2022) and Moise et al. (2021) assert that green practices are programs which are eco-friendly and are promoted to improve the hotel's image. In the context of hotels, these practices encompass a wide range of initiatives aimed at reducing resource consumption, minimizing waste generation, and promoting environmental awareness among staff and guests.

Chan (2013), classified green practices in hotels into five distinct and interconnected domains through an extensive examination of initiatives aimed at promoting environmental sustainability within the hospitality industry. These include energy efficiency measures that aim to optimize resource utilization and reducing carbon footprint; water conservation strategies, designed to moderate excessive consumption and promote responsible usage, and the implementation of effective waste management systems focusing on reduction, recycling, and proper waste disposal techniques. Furthermore, sustainable procurement practices, which prioritize environmentally friendly products and services throughout the supply chain, and environmental education and awareness programs, intended to foster a sustainable culture among stakeholders.

These categories provide a framework for understanding the diverse ways hotels can implement sustainability initiatives. For instance, energy efficiency measures might include the use of LED lighting, smart energy management systems, and renewable energy sources, such as solar panels (Dolnicar et al., 2016). Water conservation efforts often involve installation of low-flow fixtures, rainwater harvesting systems, and greywater recycling (Leonidou et al. 2015). Waste management practices typically include recycling programs, composting organic waste, and initiatives to reduce single-use plastics (Rahman et al., 2012).

Implementation of Green Practices

Hermawan et al. (2020) and Al-Juboori et al. (2020) assert that implementation of green practices significantly enhances environmental sustainability by mitigating the emission of greenhouse gases into the atmosphere. This implementation varies widely across contexts and regions. Mensah (2014) found that the

adoption of green practices in African hotels was generally lower compared to their counterparts in more developed countries. However, in recent years, there has been a growing trend towards sustainability in the African hospitality sector.

In the Nigerian context, Musa and Adebayo (2019) observed that, while there is increasing awareness of the importance of sustainability in the hotel industry, the implementation of comprehensive green practices remains limited, particularly among smaller hotels. Their study highlighted that upscale hotels in urban areas are more likely to adopt green practices because of greater resources and international brand affiliations.

Globally, the hospitality industry has gradually adopted a range of green practices to curtail its environmental impact. Common strategies implemented by hotels include the implementation of energy-efficient lighting systems (Bohdanowicz, 2005), guest-participatory towel and linen reuse programs (Berezan et al., 2013), the establishment of waste segregation and recycling initiatives (Chan, 2013), the use of environmentally friendly cleaning products (Yadav et al., 2019), and the integration of water-saving fixtures (Dolnicar et al. 2016).

These practices are widely recognized as effective strategies for reducing environmental impacts. However, the extent and effectiveness of these practices can vary significantly based on factors such as hotel size, location, target market, and management's commitment to sustainability. Nevertheless, Nouh et al. (2023) posited that implementation of green practices possesses the capacity to mitigate adverse consequences associated with climatic change, including global warming, while also improve ecological productivity and human well-being.

Barriers to Implementation

Despite the potential benefits of green practices, hotels often face significant barriers to implementation, which can be systematically categorized into several key challenges. One of the most prominent barriers is financial constraints, the high upfront costs associated with implementing green technologies and infrastructures are frequently cited in the literature as a major barrier (Chan, 2013; Leonidou et al., 2015; Casado-Díaz et al., 2020). Many hotels struggle to justify the initial investment, particularly when the return on investment period is perceived as long or uncertain. Organizational inertia presents another obstacle, as elucidated by Bohdanowicz (2005) and Mensah (2014b). The challenge of overcoming established operational procedures and employee habits. Resistance to change within the organization can significantly hinder the adoption of new, more sustainable practices. Additionally, lack of expertise in environmental management within hotel staff can limit the effective implementation and maintenance of green practices (Rahman et al., 2012). Guest skepticism presents another challenge, with some hotels expressing fear that such initiatives might be viewed as cost-cutting measures rather than genuine environmental efforts (Berezan et al., 2013). Finally, in certain contexts, such as Nigeria, the lack of strong regulatory frameworks and enforcement mechanisms for environmental standards in the hospitality industry can reduce the incentive for hotels to invest in green practices (Musa & Adebayo, 2019).

Drivers of Green Practices

Despite the barriers earlier stated, several key drivers motivate hotels to adopt green practices; several key factors serve as strong motivators for hotels to embrace green practices. One of the primary drivers is the potential for long-term cost reductions, particularly in energy and water consumption, is a significant motivator for many hotels (Dolnicar et al., 2016; Chan, 2013). This economic incentive is often a convincing reason for establishments to invest in sustainable technologies and practices. Secondly, the concept of Corporate Social Responsibility (CSR) plays a crucial role in shaping the operational strategies of hotels. Hotels increasingly recognize the importance of demonstrating environmental responsibility as part of their broader CSR initiatives as noted by Leonidou et al., (2015). This shift indicates an evolving understanding of the hotel's role in society and its responsibilities beyond mere profit generation.

Market demand also plays a crucial role, as growing consumer awareness of environmental issues has led to increased demand for sustainable hospitality options, particularly among certain market segments (Berezan et al., 2013; Blose et al., 2015). This development highlights the potential of green practices to function as a means of market differentiation and customer attraction. Moreover, the adoption of green practices offers a competitive advantage in which the Hotels that effectively implement and communicate their green practices can differentiate themselves in a competitive market (Yadav et al., 2019). This strategic assessment repositions sustainability as a value driver rather than a mere cost, with the potential to create competitive advantage and market differentiation.

Lastly, while regulatory frameworks may vary, existing and anticipated environmental regulations can drive hotels to adopt more sustainable practices (Mensah, 2014a).

Collectively, these drivers emphasize the interaction of economic, social, and regulatory factors that inspire hotels to adopt greener operational strategies.

Guest Perceptions and Willingness to Support Green Practices

Understanding guest perceptions of green practices is crucial for hotels considering sustainability initiatives. Research in this area has yielded mixed results. Several studies have found generally positive attitudes towards green practices among hotel guests. For instance, Berezan et al. (2013) and Blose et al. (2015) reported that many guests, particularly in the upscale segment, express appreciation for hotels' environmental efforts. Additionally, several researches identified a positive relationship between environmentally friendly practices and customer satisfaction, leading to willingness to pay premium (González-Rodríguez et al.2020; Özkan et al.2023).

However, the extent of this willingness can vary based on factors such as travel purpose, cultural background, and individual environmental values. On the other hand, Han and Yoon (2015) on skepticism and greenwashing noted that some guests were skeptical of hotels' environmental claims, which underscores the importance of transparent and genuine sustainability efforts. Furthermore, Jones et al. (2016) found that while green practices generally have a positive impact on guest satisfaction, this effect can be moderated by the perceived quality and convenience of the initiatives.

Impact of Green Practices on Hotel Operations

The implementation of green practices can have significant impacts on various aspects of hotel operations. Firstly, adopting sustainable initiatives often leads to a notable reduction in energy and water consumption, translating into cost savings for hotels as noted by Singal (2014). In the area of waste management, Chan (2013) illustrates that effective recycling and waste reduction programs can decrease the volume of waste sent to landfills, potentially reducing disposal costs. Beyond operational efficiencies, the hotels with strong sustainability programs often benefit from enhanced brand image and reputation, as evidenced by Leonidou et al. (2015). This finding indicates that improved perception can add to a competitive advantage in an increasingly environmentally aware market.

Furthermore, Alonso-Almeida et al. (2017) suggest that green practices can boost employee morale and engagement by aligning operational practices with environmental values. Lastly, although evidence on the financial outcomes of green practices remains mixed, some studies suggest a positive relationship between the adoption of green practices and overall financial performance (Zhang & Chen, 2020).

Research Gap and Study Rationale

Although, there is a growing body of literature on green practices in the hotel industry globally, research specific to the Nigerian context, particularly focusing on upscale hotels across different urban areas, remains limited. This gap is significant, given Nigeria's important role in the African economy and the rapid growth of its hospitality sector.

Moreover, much of the existing research on hotel sustainability practices has focused on developed countries, with less attention paid to the unique challenges and opportunities present in developing nations, such as Nigeria. This study aims to address these gaps by providing a comprehensive assessment of green practices in Nigerian upscale hotels, examining barriers and drivers specific to this context, and exploring guest perceptions in the Nigerian market. This knowledge will be valuable for hotel managers, policymakers, and researchers seeking to enhance sustainability in the Nigerian hospitality sector, and potentially in similar developing country.

III. Methodology

The study adopted quantitative research technique to assess green practices in upscale hotels located in four different urban areas of Southwestern, Nigeria. Descriptive survey was adopted to obtain primary data through questionnaire. The target population included the management, housekeeping and customer service staff, and guests of upscale hotels situated in four urban areas of Southwestern Nigeria. The hotels were purposefully selected based on their star ratings and hotel size; the hotels utilize standard operating procedures (SOPs) in their operations and they are more likely to be familiar with and have adopted some green practices in the operations of their hotels.

The Cochran's formula was used for sample size determination in each of the location. A total of 384 respondents were selected from each; giving a total of 1,536 respondents in all to ensure statistical validity. This sample size was deemed sufficient to provide reliable data for the analysis of green practices and guest perceptions. Stratified random sampling technique was further utilized to ensure representation across different categories. Hotels were stratified based on their star ratings and service offerings. Within each hotel, staff and guests were randomly selected to participate in the study, ensuring diversity in responses.

A structured questionnaire was developed as the primary data collection instrument; the questionnaire was divided into sections. The first section of the questionnaire sought relevant demographic information such

as the Age, gender, educational background, and occupation of respondents. In the other sections of the questionnaire, several questions were asked each based on the research objectives.

In gauging guests' and staff members' perceptions of the importance and effectiveness of green practices, five-point Likert scale was adopted. A pilot study was conducted with over 30 respondents to refine the questionnaire and ensure clarity of questions. The Questionnaires were distributed in person at selected upscale hotels to maximize response rates while regular follow-up was done through emails reminder, follow-up visit to encourage participants and improve response rates.

The data was analyzed using SPSS (Statistical Package for Social Sciences, SPSS 23) software. Descriptive and Inferential statistics were used to analyze the data. Descriptive analysis include simple frequencies, percentages, and means were calculated to summarize demographic data and responses regarding green practices, while Chi-Square and Person Correlation tests were used to further analyze the relationship between the implementation of green practices, guest perceptions of sustainability and the impact on upscale hotels.

Ethical Considerations

Prior to the commencement of data collection, approval was obtained from the selected hotels and all respondents were informed about the study's purpose, and their consent was obtained before participation. The research team placed significant emphasis on safeguarding participant confidentiality, and participants were given the option to withdraw from the study at any time without penalty. To further protect participant's confidentiality, all data were reported in anonymity.

Limitations

The study acknowledges some potential limitations, for instance, the focus on four urban areas may not fully represent the diversity of hotel practices across the entire Southwestern, Nigeria. However, this does not undermine findings from the study. Future research can address this limitation to further enrich the existing body of knowledge within this discipline.

IV. Research Findings And Discussions

Out of the 1536 questionnaires administered for the research study, only 1,125 were returned valid; this indicated 73.2% response rate (see Table 1). Analysis of result from this study is therefore based on the 1,125 validly returned questionnaire. This study identified several prevalent green practices adopted by hotels, highlighting their commitment to sustainability. The research findings indicate that energy-efficient lighting solutions, particularly LED bulbs, were implemented by an overwhelming majority (92.0%) of hotels surveyed (see Figure 1). This does not only reduces energy costs, but also contributes to decreased carbon emissions, aligning with global sustainability goals. The second most prevalent green practice was the implementation of linen and towel reuse programs, with 85.0% of hotels offering guests the option to reuse these items. This effectively minimized the water and energy use associated with laundering. Water-saving fixtures, including low-flow toilets and faucets, were installed in 78.0% of hotels, which are essential in conserving water resources. Formal recycling programs were implemented in 65.0% of the surveyed hotels, indicating a growing emphasis on managing waste and reducing the environmental impacts associated with disposal. Finally, 58.0% of hotels reported adopting environmentally friendly cleaning products, indicating an increasing awareness of reducing harmful chemical use in daily operations.

The findings revealed that majority of the hotels are environmentally friendly (89.8%), while 68.9% of the respondents reported that the hotels have a recycling place to efficiently manage their waste. 93.4% opined that the hotels conduct environmental awareness training and campaigns although at varying intervals (see Table 2). Furthermore, the adoption of green practices was prevalent across all four examined locations, with 76.0% of upscale hotels implementing at least one such environmentally sustainable initiative. A detailed analysis by location indicated the highest adoption rate in Lagos, where 89.0% of the upscale hotels embraced green practices. This was followed by Ibadan with 75.0% adoption, and Abeokuta, where 72.0% of the upscale hotels reported implementing at least one sustainable practice. The lowest adoption rate was found in Osogbo, where 68.0% of the upscale hotels had integrated green initiatives. This study clearly established significant variation in the adoption of green practices in the study areas. Statistical analysis of the data revealed an average implementation rate of 76.0% across the four locations, with a standard deviation of (SD = 9.13). This variation suggests that, while there is a general trend towards adopting green practices in the upscale hotel sector, significant disparities exist between locations.

Factors Influencing Green Practices Adoption

Hotel Characteristics

The research findings revealed that specific hotel characteristics significantly influence the adoption of green practices. Hotel size emerged as a critical determinant, with upscale hotels defined as those with more than 100 rooms being 2.3 times more likely to implement comprehensive green practices ($p < 0.01$). This suggests that upscale hotels may possess greater resources or economies of scale that facilitate the implementation of environment-friendly measures. Star ratings also exhibited a strong association with green practice adoption rates. The research found that upscale hotels have a significant higher rate of green practice implementation ($p < 0.001$). This implies that higher-rated hotels may have more incentive or capacity to invest in sustainable practices, possibly because of brand image considerations or guest expectations.

Management Attitudes

Multiple regression analysis conducted to examine the factors influencing the adoption of green practices in the hotel industry yielded significant insights into the role of management attitudes. The analysis demonstrates that management's environmental awareness emerged as a significant predictor, with a standardized beta coefficient of $\beta = 0.42$ ($p < 0.001$), indicating its strong positive association with green practices. The study reveals that management's environmental awareness and the perceived benefits of green practices are both statistically significant predictors of the implementation of environmentally sustainable initiatives. This substantial beta coefficient indicates that for every standard deviation increase in management's environmental awareness, there is a corresponding 0.42 standard deviation increase in the likelihood of green practice adoption, holding other variables constant. Similarly, the perceived benefits of green practices were also significant predictors ($\beta = 0.38$, $p < 0.001$). This finding suggests that as management's perception of the advantages associated with green practices increases by one standard deviation, the probability of adopting such practices rises by 0.38 standard deviations, provided that the other variables are held constant.

Challenges in Implementing Green Practices

Research findings on the challenges associated with implementing green practices in the upscale hotels have revealed a complex variety of obstacles. This study identified several key barriers that hotel manager's encounter when attempting to adopt environmentally sustainable initiatives.

High initial investment costs were reported as the most significant barrier by 78.0% of the respondents (see Table 3). This indicates that many hotels face difficulties in allocating resources to green practice initiatives. Lack of staff expertise emerged as the second most significant challenge, with 65.0% of respondents referring to it as a major obstacle, stressing the need for targeted training and capacity-building initiatives. Additionally, the limited availability of green products and technologies was another major concern, reported by 58.0% of the participants, while uncertainty regarding the return on investment was a notable barrier (45.0%). Finally, concerns about the broader economic impacts of adopting green practices have also been reported.

Barriers to the Implementation of Green Practices

The in-depth interviews with hotel managers revealed several key barriers to the implementation of green practices in upscale hotels:

1. **Financial Constraints:** The high upfront costs associated with investing in sustainable technologies and infrastructures were consistently cited as a significant barrier by hotel managers. Many expressed concerns about the long payback periods and uncertainty around the financial benefits of green initiatives.
2. **Organizational Inertia:** Hotel staffs were often resistant to changes in established operational procedures, particularly when it came to adopting new environmentally friendly practices. Managers highlighted the challenge of overcoming the ingrained habits and behaviors of employees.
3. **Guest Skepticism:** Some hotel managers expressed concerns about guest skepticism towards the hotels' environmental claims, as well as a lack of active guest participation in green initiatives. This was perceived as a barrier to the successful implementation and maintenance of green practices.
4. **Lack of Regulatory Support:** Managers pointed to the absence of clear government policies, incentives, and enforcement mechanisms as a hindrance to the widespread adoption of green practices in the hotel industry.

Impact of Green Practices

Cost Saving

Research findings on the economic impact of green practices in the hotel industry reveal significant positive outcomes in terms of cost savings and revenue generation. Hotels that implemented comprehensive green programs reported an average reduction of 22.5% in operational costs over a three-year period ($SD = 5.8$), implying that adopting green practices can lead to significant long-term financial benefits, possibly offsetting initial implementation costs.

Revenue Impacts

Green-certified hotels have demonstrated a notable competitive advantage in terms of revenue impact. These hotels reported a 12.0% higher occupancy rate than non-certified competitors, a difference that was statistically significant ($p < 0.01$). Additionally, green certification is associated with an average price premium of 8.5%, with a 95% confidence interval ranging from 6.2% to 10.8%. This price premium suggests that consumers are willing to pay more for accommodations that demonstrate commitment to environmental sustainability.

Guest Perceptions and Behaviors

The findings of this study provide important insights into guest perceptions and behaviors regarding green practices in hotels. Among the surveyed guests, 72.0% reported being aware of at least one green practice implemented by their hotel, indicating that hotels' efforts to communicate their green practice initiatives are largely effective in reaching their target audience.

Influence on Booking Decisions

Findings also revealed that green practices played a significant role in influencing booking decisions, with 65.0% of respondents stating that a hotel's sustainability initiatives positively impacted their choice of accommodation.

Willingness to Pay

This study also examined guests' willingness to pay a premium for hotels with certified green practices. The results indicate that on average, guests were prepared to pay a 6.8% premium for such accommodations ($SD = 3.2$).

Guest Satisfaction

Research findings on the influence of green practices in the hotel industry have revealed significant impacts on guest satisfaction.

Hierarchical multiple regression analysis demonstrated that the implementation of green practices was a significant predictor of guest satisfaction scores ($\Delta R^2 = 0.15$, showing a statistically significant improvement ($F(1, 1123) = 198.42$, $p < 0.001$). This finding indicates that the adoption of green practices contributes significantly to enhancing guest satisfaction, emphasizing the value that guests place on sustainability in their accommodation experiences.

Drivers of the Green Practices Implementation

The interviews also identified several key drivers that motivated hotel managers to implement green practices:

1. **Cost Savings:** The potential for long-term cost reductions through energy and water efficiency measures was a significant driver for many hotel managers, as it helped offset the initial investment required.
2. **Corporate Social Responsibility:** Hotel managers emphasized the importance of demonstrating their commitment to environmental sustainability as part of their corporate social responsibility initiatives, which could enhance their brand reputation and competitiveness.
3. **Guest Demand:** Increasing guest expectations and preferences for environmentally responsible hospitality experiences were recognized as a critical driver for the implementation of green practices in upscale hotels.
4. **Regulatory Compliance:** While less prominent, some hotel managers acknowledged the need to comply with emerging environmental regulations and policies as a motivating factor for adopting green practices.

Guest Perceptions and Willingness to Support Green Practices

The questionnaire survey of hotel guests revealed generally positive attitudes towards green practices in upscale hotels. Key findings include:

1. **Perceived Environmental Performance:** Guests had a favorable perception of the environmental sustainability of the upscale hotels, with the majority (68.0%) rating the hotels as "somewhat" or "very" environmentally friendly.
2. **Willingness to Pay Premium Prices:** A significant proportion of guests (61.0%) expressed a willingness to pay higher room rates for hotels demonstrating strong environmental practices, indicating the commercial viability of sustainable hospitality offerings (see Table 4).
3. **Disconnect between Expectations and Performance:** While guests had positive overall perceptions, they identified certain areas, such as energy and water conservation, where hotel performance fell short of their expectations.

- 4. Desire for Increased Guest Engagement:** Guests emphasized the importance of hotels actively involving and educating them on green initiatives, suggesting that targeted guest engagement programs could enhance the effectiveness of sustainability efforts.

V. Discussion

This study provides an in-depth exploration of the green practices implemented in upscale hotels across four urban areas in Nigeria, with a focus on understanding the current state of these practices, the challenges associated with their implementation, and the perceptions of guests regarding environmental sustainability. This discussion integrates the relevant literature to contextualize the results and provides insights into how these findings contribute to the broader discourse on sustainability in the hospitality industry. The high overall adoption rate (78.0%) indicates growing recognition of the importance of sustainability in the Nigerian hotel industry. However, the variation across locations suggests that urban areas, such as Lagos, are leading in adoption, possibly due to greater access to resources and technologies, and the prevalence of energy and water conservation practices aligns with global trends in the hospitality industry (Chan et al., 2017). However, the lower adoption of waste recycling and eco-friendly products indicate areas for potential improvement.

The significant influence of hotel size and star rating on green practice adoption corroborates findings from other developing countries (Mensah, 2014). This suggests that larger, upscale hotels tend to have greater capacity and motivation to invest in sustainability. This highlights the need for education and awareness programs targeted at hotel leadership. The challenges identified particularly high initial costs and lack of expertise, echo those found in other emerging markets (Alonso-Almeida et al., 2017). The substantial cost savings (22.5%) and revenue benefits (12.0% higher occupancy, 8.5% price premium) demonstrate a clear business case for green practices. These findings support the argument that sustainability initiatives can enhance both environmental performance and financial outcomes (Singal, 2014). The high guest awareness (72.0%) and positive influence on booking decisions (65.0%) indicate a growing eco-consciousness among Nigerian hotel guests. The willingness to pay a premium (6.8%) for green hotels, while lower than some international benchmarks, is consistent with previous research results (Homburg et al.2005; Kang et al. 2012; Yang et al. 2024). This suggests an emerging market for sustainable accommodations in Nigeria. The significant relationship between green practices and guest satisfaction underscores the potential for sustainability initiatives to enhance the overall guest experience (Han & Yoon, 2015). And also the gap between staff awareness (85.0%) and formal training (62.0%) highlights an opportunity for hotels to enhance their green initiatives through more comprehensive staff development programs. Regional variations in adoption rates and types of practices implemented reflect the influence of local contexts on sustainability initiatives. The higher adoption of technology-based practices in urban areas suggests a potential urban-rural divide in access to green technologies.

There are positive trends observed between adoption rates, guest awareness, and willingness to pay is encouraging. They indicate a growing momentum for sustainability in the Nigerian hotel industry, aligning with global shifts towards more environmentally conscious hospitality practices (Jones et al., 2016). Theoretically, these findings contribute to the literature on sustainability adoption in developing country contexts, highlighting the interplay between organizational factors, management attitudes, and external pressures. Practically, the results provide a strong rationale for hotel managers to invest in green practices, emphasizing both the environmental and economic benefits. For policymakers, the findings underscore the need for incentives and support mechanisms to overcome the identified challenges, particularly for smaller and lower-rated hotels. The low awareness of environmental regulations and perceived lack of government incentives highlight a critical gap in policy implementation. This suggests a need for more effective communication of existing policies and development of targeted incentives to accelerate green practice adoption (Musa & Adebayo, 2019).

Environmental Impact Assessment shows that Carbon footprint reduction in hotels with comprehensive green practices showed an average 18.0% reduction in carbon emissions over two years ($p < 0.001$). Water conservation with implementation of water-saving fixtures resulted in a mean 24.0% reduction in water consumption. While Policy and Regulatory Environment shows that 68.0% of hotel managers reported insufficient government incentives for green initiatives and only 35.0% were aware of existing environmental regulations applicable to the hotel industry.

The significant reductions in carbon emissions and water consumption demonstrate tangible environmental benefits of green practices. These findings align with global studies (e.g., Zhang et al., 2020; Wang et al.2024a) and underscore the potential for the Nigerian hotel industry to contribute to national sustainability goals. These findings extend the application of Institutional Theory in sustainability adoption, demonstrating how normative pressures (guest expectations) and mimetic processes (industry trends) influence green practice implementation in the Nigerian context. The focus on upscale hotels limits the generalizability of findings to the broader hospitality sector. Future research could explore sustainability practices in budget and

mid-range hotels. Additionally, longitudinal studies could provide deeper insights into the long-term impacts of green practices on hotel performance and guest behaviors.

Key Findings

The study found varying adoption rates across the four urban areas, with Lagos leading at 89.0%, followed by Ibadan (75.0%), Abeokuta (72.0%), and Osogbo (68.0%). This variation highlights the influence of local contexts on sustainability initiatives. It also suggests opportunities for further improvement and standardization of sustainable initiatives in the hospitality sector. The most widely implemented green practices include energy-efficient lighting (92.0%), linen and towel reuse programs (85.0%), and water-saving fixtures (78.0%). However, more complex initiatives like comprehensive recycling programs (65.0%) show room for improvement.

Hotel size and star rating significantly impact green practice adoption, with larger and higher-rated hotels demonstrating greater implementation rates. Management attitudes, particularly environmental awareness and perceived benefits, are strong predictors of green practice adoption. Hotels with comprehensive green programs reported an average 22.5% reduction in operational costs over a three-year period, demonstrating the financial viability of sustainability initiatives. The study revealed positive guest attitudes towards green practices, with 65.0% stating that a hotel's sustainability efforts positively influenced their booking decisions. Guests showed a willingness to pay an average premium of 6.8% for hotels with certified green practices. Hotels implementing comprehensive green practices achieved an average 18% reduction in carbon emissions over two years and a 24.0% reduction in water consumption.

Despite these positive trends, the study also revealed persistent challenges, such as high initial costs, inadequate staff expertise, and limited government support. These obstacles must be tackled to encourage wider adoption of sustainable practices in the hotel industry. By overcoming the identified barriers and leveraging the key drivers, hotel managers can position their establishments as leaders in sustainable hospitality, enhancing their competitive advantage and contributing to environmental preservation. Fostering a collaborative ecosystem that involves hotel staff, guests, industry associations, and regulatory bodies can further accelerate the widespread adoption of green practices in the hotel industry. In addition, guest perceptions revealed a growing market for eco-friendly accommodations, with many travelers willing to pay a premium for green-certified hotels. This trend presents an opportunity for hotels to differentiate themselves in a competitive market, leveraging sustainability as a key component of their branding and marketing strategies.

This study contribute to the understanding of sustainability in the Nigerian hospitality sector and provide a roadmap for hotel managers, policymakers, and industry stakeholders. Collaborative efforts to enhance training, provide financial incentives, and promote sustainable tourism practices will be essential for driving further progress in this critical area. Future research should explore the long-term impacts of green practices on guest satisfaction, loyalty, and hotel financial performance, as well as investigate the effectiveness of various guest engagement strategies in promoting sustainable hospitality experiences.

VI. Conclusion

This study provides crucial insights into the adoption of green practices among upscale hotels in Nigeria, revealing a significant overall adoption rate of 78.0%. This finding highlights a notable shift towards sustainability within the hospitality sector, driven by both economic incentives and growing consumer awareness of environmental issues.

VII. Implications And Recommendations

Hotels should adopt holistic approaches to sustainability, integrating green practices across various operational domains. Allocating resources towards energy-efficient, water-saving, and waste-management technologies can help overcome financial barriers and achieve long-term cost savings. Implementing targeted programs to educate and involve guests in sustainability efforts can enhance participation and satisfaction. Fostering a culture of environmental consciousness among hotel staff is crucial for overcoming organizational inertia and ensuring successful implementation of green practices. Hotel managers should collaborate with industry associations to advocate for supportive policies, incentives, and enforcement mechanisms that encourage widespread adoption of green practices.

Table 1: Analysis of Questionnaire Administration

Questionnaire Administration	Frequency	Percentage
Total number of Questionnaire Administered	1,536	100%
Total number of Questionnaire Returned Valid	1,125	73.2%

Source: Field Survey (2024)

Table 2: Assessing the Present State of Green Practices Consciousness in the Hotels

Questions	Responses	Frequency (N)	Percentage (%)
How environmentally Friendly do you perceive the practices of your hotel to be	Not at all environmentally friendly	115	10.2%
	Slightly environmentally friendly	209	18.6%
	Environmentally friendly	515	45.8%
	Extremely environmentally friendly	286	25.4%
	Total	1125	100%
Does your hotel have a recycling in place?	Yes	774	68.9%
	No	167	14.8%
	Not sure	184	16.4%
	Total	1125	100%
How often does your hotel conduct environmental training or awareness programs for staff	Weekly	165	14.8%
	Monthly	572	50.8%
	Quarterly	167	14.8%
	Annually	147	13.1%
	Never	74	6.6%
	Total	1125	100%
Are guests encouraged to participate in environmental conservation efforts during their stay	Yes, through incentive programs	406	36.1%
	Yes, through signage and communication	387	34.4%
	No	222	19.7%
	Not sure	110	9.8%
	Total	1125	100%

Source: Field Survey 2024.

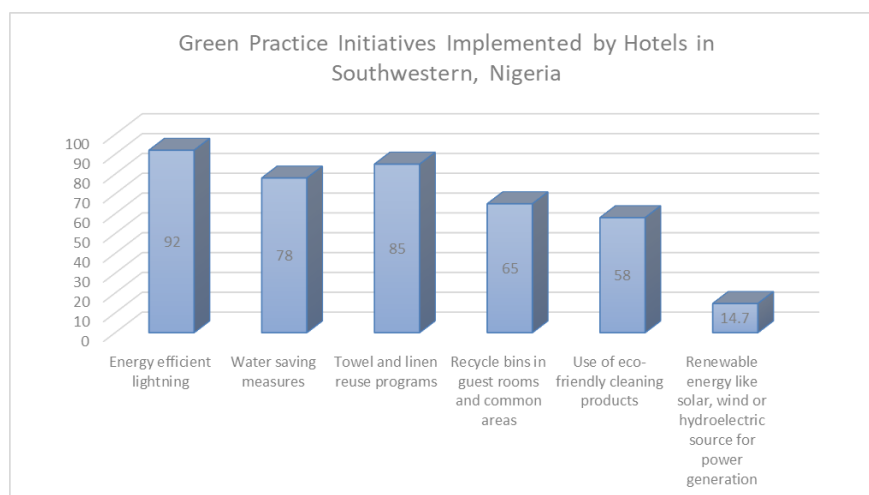


Figure 1: Green Practice Initiatives Implemented by Upscale Hotels in Southwestern, Nigeria

Source: Field Survey, 2024

Table 3: Challenges faced by upscale hotels

Variables	Strongly Disagree	Disagree	Agree	Strongly Agree	Mean	S.D	Remark
High initial investments costs for eco-friendly infrastructure and technology	98 8.7%	150 13.3%	436 38.8%	441 39.2%	3.47	0.632	SA
Limited availability of sustainable resources and technological materials	244 21.7%	228 20.3%	401 35.6%	252 22.4%	3.29	0.655	A
Difficulty in balancing luxury guest expectations return on investment	320 28.4%	299 26.6%	173 15.4%	333 29.6%	2.85	0.609	SA

Lack of expertise knowledge and understanding among hotel staff about sustainable practices	150 13.3%	243 21.7%	482 42.8%	250 22.2%	3.34	0.666	A
Challenges in communicating green initiatives to guests	232 20.6%	312 27.7%	263 23.4%	318 28.3%	3.14	0.754	SA

Source: Field Survey 2024.

Table 4: Guests' Perception and Willingness to Support Green Practices

Variables	Strongly Disagree	Disagree	Agree	Strongly Agree	Mean	S.D	Remark
The hotel's efforts to conserve energy are evident throughout my stay	3.3%	4.2%	38.5%	44.4%	1.84	0.993	SA
I believe the hotel effectively manages its water consumption	3.8%	3.3%	47.7%	34.5%	1.94	0.966	A
The waste management practices in the hotel are environmentally responsible	4.6%	4.6%	38.3%	34.6%	2.06	1.060	A
Overall, I believe this hotel is committed to sustainability and environment friendly	7.4%	24.6%	43.8%	24.2%	2.05	1.050	A
I would likely stay at this hotel again because of its green initiatives	3.4%	4.2%	45.4%	30.8%	2.03	0.972	A
I am willing to pay a premium for a hotel that demonstrates strong environmental practices	16.3 %	22.7 %	13.2 %	37.8 %	2.11	1.629	SA

Source: field survey 2024.

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