

Sustainable Environmental Practices in the Hotel Industry in Sub-Saharan Africa: A Systematic Literature Review

Ziphonzakhe Theophilus Shasha^{a1}

*^aCape Peninsula University of Technology, Department of Tourism and Events Management,
Cape Town P.O. Box 8000, South Africa*

Abstract: This systematic literature review examines sustainable environmental practices in the hotel industry in Sub-Saharan Africa, focusing on the practices adopted, factors influencing implementation, barriers to adoption, and reported environmental and organisational outcomes. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 framework was used for this review. The search in the Scopus and Web of Science databases was carried out using combinations of the terms hotel, accommodation, environmental sustainability, environmental management, green practices, and Sub-Saharan African geographical terms. A total of 347 records matched the search. After screening and eligibility assessment, a total of 32 studies were included in the final qualitative synthesis. Evidence was compared across countries, hotel categories, and research designs using a structured data-extraction matrix and narrative thematic synthesis. The findings suggest that energy conservation, water management, waste reduction and recycling, eco-friendly procurement and green technologies, and environmental management policies are the major prevailing environmental practices. Management commitment, environmental awareness, customer expectations, regulatory requirements, cost reduction, and competitive considerations are associated with adoption. However, finances, lack of infrastructure, technical knowledge, poor regulatory enforcement, and a lack of incentives and organizational commitment constrain implementation. Awareness of sustainable environmental practices is growing in hotels in Sub-Saharan Africa, with inconsistent implementation across both context and location. To progress from individual green projects, there is a need for improved environmental governance, management engagement, staff development, integration of suitable technology, financial resources, and effective environmental policy implementation.

Keywords: Sustainable environmental practices; Hotel industry; Sub-Saharan Africa; Environmental sustainability; Green practices; Sustainable tourism.

1. Introduction

The tourism economy in Sub-Saharan Africa is an important sector in which the hotel industry plays a significant role. However, hotel operations also have significant environmental impact in terms of energy and water consumption (Antonova et al., 2026; MacAskill et al., 2023), disposal of solid liquid waste (Barakagira & Paapa, 2024; Makoondlall-Chadee & Bokhoree, 2024), use of consumable products (Diaz-Farina et al., 2023; Sun & Nasrullah, 2024), transportation related activities (Shin et al., 2025; Zhang & Jung, 2025), and other resource intensive activities (Mbasera et al., 2016). The continuous operation of accommodation establishments means that environmental management is not simply an external sustainability concern but is directly connected to everyday hotel operation. Thus, the issue of environmental sustainability is a crucial aspect of hotel management, especially given that the sector is increasingly expected to take

¹ Corresponding author Ziphonzakhe Theophilus SHASHA, Received in September 2026, Published in October 2026.

measures to minimise its environmental footprint for the government, customers, communities, and others who are stakeholders in the hotel sector (Prakash et al., 2023; Yang et al., 2026).

Research undertaken across Sub-Saharan Africa demonstrates that hotels have adopted a variety of environmental practices (Shasha, 2025; Shereni & Rogerson, 2025), although the level and sophistication of implementation differ considerably between establishments and locations. Early evidence from Ghana demonstrated that hotel size and category were associated with environmental management practices, with larger three- to five-star establishments more likely to adopt environmental management measures than smaller establishments (Mensah, 2006). Subsequent research in Accra similarly found differences in environmental management according to hotel category and indicated that larger and higher-quality hotels tended to demonstrate stronger environmental performance (Mensah, 2014). Research on management commitment further showed that upscale and larger hotels were more likely to have designated environmental officers, written environmental policies, environmental action plans, and environmental programmes (Mensah & Blankson, 2014).

The environmental practices reported across the literature include energy conservation, water conservation, waste management, recycling, environmentally responsible purchasing, green cleaning, environmental monitoring, renewable energy, environmental policies, eco-labelling, environmental reporting, and green technologies (Hossain et al., 2025; Schoeman & Davis, 2026; Yacob et al., 2019). Studies in Zimbabwe and South Africa, for example, identified environmentally friendly practices but also highlighted the absence of formal green-management policies in some hotels and a gap between managerial awareness and actual implementation (Mbasera et al., 2016). Research in Malawi similarly identified environmental innovations involving water, energy, waste management, and hotel design, while emphasising the importance of collaboration between government and the private sector (Khonje et al., 2020). More recent studies suggest that the environmental sustainability agenda is becoming increasingly sophisticated. Research in Uganda identified energy conservation, waste management, and environmental purchasing among green practices implemented by five-star hotels, while reporting benefits including reduced material costs, increased profitability, and competitive advantage (Barakagira & Paapa, 2024). In Kenya, studies have examined the extent to which hotels implement green practices and whether those practices contribute to sustainability, with evidence indicating positive relationships between green-practice adoption and hotel sustainability (Kamunzyu et al., 2024). Further research has shifted attention from adoption itself towards implementation strategies, demonstrating that how green practices are implemented may influence sustainability outcomes (Kamunzyu et al., 2025). It also suggests that there is a connection between the evidence of environmental sustainability and organizational and institutional conditions. Research in Tanzania found that management commitment positively influences the implementation of environmental management practices and that such practices are associated with business sustainability (Mbiye & Mungure, 2023; Memon et al., 2022). Likewise, research on technological, organizational, and environmental influences on sustainability showed that technological progress, organizational commitment, and the environment are all factors of sustainability practices in hotels (Martín et al., 2024). In South Africa, recent qualitative findings show increasing awareness among hotel managers that environmental sustainability is now viewed as an ethical and business obligation (Oriade et al., 2020; Rasethuntsa & Maeti, 2025; Shava, 2025). However, infrastructural instability, high initial costs, lack of supplier availability, and a degree of resistance by some stakeholders hinder the implementation of environmental sustainability (Nong et al., 2026).

Despite the accumulation of evidence, the literature remains geographically fragmented and methodologically diverse. Previous studies have focused on individual countries, cities, hotel types, or specific environmental practices, and therefore the overall picture of the current status of environmental sustainability in the Sub-Saharan African hotel sector is not available. Some studies are energy- or water-related; others are waste, environmental governance, management commitment, environmental reporting, green innovation, or sustainability outcomes. This fragmentation makes it difficult to identify which practices are being adopted most consistently,

what makes it easier, what makes it harder, what the environmental or organizational outcomes of adoption are, and what the environmental or organizational barriers that occur across contexts.

A synthesis of the available data is therefore required to bring together the available information and draw conclusions on a regional pattern. This review is timely to meet this requirement and aims at a systematic of the studies obtained from the Scopus and Web of Science databases and compile of evidence related to sustainable environmental practices in Sub-Saharan African hotels.

1.1. Problem statement

While the issue of environmental sustainability has increasingly gained attention in the hotel sector (Blanco-Moreno et al., 2024; Makoondlall-Chadee et al., 2024), research data on sustainable environmental practices in Africa, especially Sub-Saharan Africa, is fragmented by country, hotel type, and environmental aspects (Mbugua et al., 2026; Tokro & Dzitse, 2024). Previous research shows that hotels have implemented practices related to energy conservation, water management, waste reduction, recycling, green purchasing, renewable energy, and environmental management, but they are not necessarily consistent. While some have established formal environmental policies, monitoring systems, and green technologies, others are still relatively low on the environmental engagement scale.

The problem is, however, not so much the lack of sustainable environmental practices as the lack of systematic and embedded environmental management as a result of environmental awareness and individual actions. Studies conducted in Ghana have shown that there are differences in the size and category of hotels, and in Malawi, there are gaps in policy implementation and environmental management governance. The same can be observed in Kenya, Tanzania, Uganda, South Africa, and Nigeria, where financial constraints, infrastructure, skills, awareness, management commitment, and regulatory factors affect the implementation of environmental practices (Mensah, 2006; Khonje et al., 2021; Kamunzyu et al., 2024; Mbise & Mungure, 2023; Idoko et al., 2025). Moreover, the evidence available is often quite localized and/or limited in subject matter. Evidence on hotel environmental practices in Ghana and Kenya is quite developed, whereas it is relatively limited in other Sub-Saharan African countries (Baryiri et al., 2026; Sarkodie et al., 2026). The results of different analyses are also different. Several studies have concentrated on environmental outcomes; others have linked environmental practice to cost savings, customer satisfaction, competitiveness, or business sustainability/organizational reputation (González-Viralta et al., 2023; Moisesu & Gică, 2020; Nagiah & Mohd Suki, 2024; Surbakti et al., 2025). Hence, the link between environmental practices and overall hotel sustainability needs to be synthesized and not analysed in individual country studies.

There is a lack of a systematic synthesis that leads itself to gap-filling that will help fill a gap in knowledge regarding the overall pattern of the environmental sustainability practices of the hotels in Sub-Saharan Africa. A systematic review can help fill this gap, by synthesizing available evidence, highlighting common practices and implementation contexts, comparing barriers and enable factors, and defining geographical, methodological and thematic research gaps.

1.2. Aim of the study

The systematic literature review intends to critically synthesise current literature on sustainable environmental practices in the hotel sector in Sub-Saharan Africa and focus on the practices undertaken, factors influencing the implementation, barriers to implementation, environmental and organizational outcomes, and gaps that need further investigation.

1.3. Research objectives

This study aims to:

To highlight the key sustainable environmental practices of hotels and accommodation establishments in Sub-Saharan Africa.

To analyse the organizational, economic, market, technology, and regulatory aspects that affect adoption and implementation of sustainable environmental practices.

To find out the key obstacles and challenges to the implementation of sustainable environmental measures within the hotel sector

To investigate the environmental, operational and organizational impacts of environmental sustainability.

To identify geographical, methodological and thematic gaps in the existing literature and develop an integrated conceptual understanding of sustainable environmental practices in the Sub-Saharan African hotel sector.

1.4. Research questions

The review was guided by the following research questions:

RQ1: What sustainable environmental practices have been adopted by hotels in Sub-Saharan Africa?

RQ2: What factors influence the adoption and implementation of sustainable environmental practices in the hotel industry?

RQ3: What are the challenges to sustainable environmental practices?

RQ4: What are the outcomes of sustainable environmental practices in terms of environmental, operational and organizational issues?

RQ5: What are the key geographical, methodological and thematic gaps in existing literature related to environmental sustainability of the hotel industry in Sub-Saharan Africa?

2. Literature review

2.1 Sustainable environmental practices in hotels

The use of a significant amount of energy and water, and various waste streams associated with their operations, including those related to accommodation, food and beverage, housekeeping, and laundry. Thus, environmental sustainability in a hotel is not just a few practices; it includes a wide variety of activities to minimize the use of resources and the impact on the environment without compromising the level of efficiency of the hotels (Makoondlall-Chadee & Bokhoree, 2024; Mbasera et al., 2016; Prakash et al 2023). The literature reviewed has revealed energy management as one of the most explored aspects of environmental sustainability. Some practices involve turning off power in unoccupied rooms, selecting energy-efficient lighting and appliances, implementing sensor or key-card systems, tracking energy usage, and exploring energy alternatives. The results in Ghana revealed that energy conservation and energy monitoring are among the energy practices being implemented in the star-rated hotels, while the results in Uganda showed that energy monitoring among the five-star hotels is one of the main green practices adopted in five-star hotels (Sarkodie Amoako et al., 2024; Barakagira & Paapa, 2024).

In Tamale, further research on sustainable energy systems reveals a relationship between factors relating to hotel characteristics and staff capacity and the availability of green management policies; however, cost and customer understanding were obstacles to the successful implementation of sustainable energy (Appiah et al., 2024). Another constant theme is water conservation. Low-flow technologies, dual-flush toilets, water monitoring, maintenance of plumbing systems, reuse of water, and other water conservation methods are used in hotels. The findings in Ghana show that hotels are trying to conserve water and keep sanitary facilities and pipes in good condition to prevent water loss (Sarkodie Amoako et al., 2024). Energy- and water-saving technologies, such as low-flow water technologies and the use of water for gardening, were reported as being implemented in Ethiopia, as were formal environmental policies, though the implementation of alternative energy systems was less consistent (Kassim, 2024).

Waste management and recycling are similarly prominent. Hotel waste originates from food and beverage activities, housekeeping, packaging, and other operations. The literature reports

waste reduction, recycling, reuse, and waste separation as important environmental practices. However, implementation remains uneven. Evidence from Nigeria indicates that many hotels lacked structured waste-disposal systems, while research in Zimbabwe suggests that waste-related practices can contribute to operational efficiency and resource recovery (Idoko et al., 2025; Muchingami et al., 2025). Sustainable procurement and green purchasing are also increasingly evident. These practices involve purchasing environmentally preferable products, locally produced goods, environmentally friendly cleaning products, and materials with lower environmental impacts. Research in Uganda identified environmental purchasing as an important green practice, while research in Kenya found eco-friendly purchasing to be particularly important for sustainable hotel operations (Barakagira & Paapa, 2024; Obegi et al., 2025).

2.2 Drivers of sustainable environmental practices

The evidence indicates that environmental sustainability adoption is influenced by multiple interacting drivers rather than a single factor. Management commitment is one of the most consistently identified organisational drivers. Findings from the research conducted in Ghana revealed that larger and higher-quality hotels were more committed in terms of having environmental policies, designated responsibilities, and environmental programmes (Mensah & Blankson, 2014). Likewise, a study in Tanzania showed that having management commitment had a positive effect on the practice implementation of environmental management and sustainability of business (Mbise & Mungure, 2023). There is also an economic factor. Environmental practices can lower operating costs, including energy and water usage, efficient use of resources, and waste reduction. Research in Uganda, Kenya, Nigeria, and Zimbabwe associates green practices with cost savings, profitability, operational efficiency, and competitiveness (Barakagira & Paapa, 2024; Kamunzyu et al., 2024; Abdullahi et al., 2026; Muchingami et al., 2025).

Customer expectations constitute another driver. Customer demand was reported to affect the adoption of green practices in Ghana (Sarkodie Amoako et al., 2024), and studies of the green practices of hotel guests indicate that the guests are increasingly aware and responsive to visible green initiatives (Boadi Nyamekye et al., 2025). This means that sustainability in the environment could become one of the hotel's value propositions. Regulation and environmental standards also influence implementation. Regulatory influence, however, appears to be largely dependent on enforcement. A study in Malawi revealed that there were omissions and deficiencies in the implementation of the national tourism policy and a lack of sustainable environmental practices (Khonje et al., 2021). Likewise, the study undertaken in Nigeria revealed that a lack of regulatory oversight is one of the impediments to environmental sustainability (Idoko et al., 2025). Technology innovation is also a key factor. Green technologies, environmental innovations, and renewable energy are cited as significant tools for enhancing environmental performance in the context of the African hotel industry and in Ghana (Khonje et al., 2020; Marfo et al., 2024; Martín et al., 2024).

3. Materials and method

3.1 Research design

The study adopted a systematic literature review that uses a synthesis of existing evidence to analyse sustainable environmental practices in the hotel industry in Sub-Saharan Africa. This review was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (Page et al., 2021). We chose this approach because we only needed to identify, screen, assess, and synthesise the literature systematically, not collect primary data.

3.2 Information sources

Scopus is defined as a comprehensive database that indexes a wide range of studies, including those related to regional health information systems and their outcomes (Mäenpää et al., 2009). The Web of Science (WoS) Core Collection database is a selective citation index of scientific and

scholarly publishing covering journals, proceedings, books, and data compilations (Birkle et al., 2020). Combining Scopus and Web of Science (WoS) provides a more comprehensive, unbiased, and robust dataset for systematic literature reviews and bibliometric analyses than using either database alone (Pranckutė, 2021). Scopus and Web of Science were the two major bibliographic databases that were searched. They were chosen due to their wide scope of peer-reviewed literature relating to tourism, environmental management, sustainability, and business research (Changalima & Kimario, 2025; Osorio-Molina et al., 2023; Ramos-Giral et al., 2025; Aydoğan & Talay, 2025).

3.3 Search strategy

To facilitate this search, four main concepts were considered, namely “hotel and accommodation establishments”, “environmental sustainability and management”, “specific environmental practices”, and “geographic context - Sub-Saharan Africa”.

The principal search string was:

TITLE-ABS-KEY((hotel* OR hospitality OR "hotel industry" OR "hotel sector" OR accommodation OR "accommodation establishment*" OR resort* OR lodge* OR "guest house*") AND ("environmental sustainability" OR "environmental management" OR "sustainable environmental practice*" OR "environmentally friendly practice*" OR "green practice*" OR "green management" OR "green hotel*" OR "environmental practice*" OR "environmental performance" OR "environmental innovation*" OR "green innovation*" OR "eco-efficien*" OR "resource efficien*") AND ("Sub-Saharan Africa" OR Angola OR Benin OR Botswana OR Burkina OR Faso OR Burundi OR Cabo OR Verde OR Cameroon OR Central African Republic (the) OR Chad Comoros (the) OR Congo (the) OR “Côte d'Ivoire” OR Democratic Republic of the Congo (the) OR Djibouti OR Equatorial Guinea OR Eritrea OR Eswatini OR Ethiopia OR Gabon OR Gambia (the) OR Ghana OR Guinea OR Guinea-Bissau OR Kenya OR Lesotho OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mauritius OR Mayotte OR Mozambique OR Namibia OR Niger (the) OR Nigeria OR Rwanda OR Sao Tome and Principe OR Senegal OR Seychelles OF “Sierra Leone” OR Somalia OR “South Africa” OR South Sudan OR Sudan (the) OR Togo OR United Republic of Tanzania (the) OR Uganda OR Zambia OR Zimbabwe"))

For studies on specific environmental dimensions, additional searches were conducted with specific search terms, such as energy efficiency, renewable energy, water conservation, waste management, recycling, sustainable procurement, green procurement, carbon reduction, and pollution prevention.

3.4 Identification and screening

A total of 347 records were found in the database search in Scopus and Web of Science. Records were combined and checked for eligibility criteria. Screening consisted of both title and abstract screening and full-text screening for eligibility. The process of selecting studies for the study is reported in line with the PRISMA 2020 framework. The intermediate numbers for duplicates, title-and-abstract exclusions, and full-text exclusions are not retrospectively estimated because the available evidence is not the full database export and screening log. A total of 347 records were confirmed in a search of the database, and 32 studies were included in the final eligible evidence base.

3.5 Inclusion criteria

The studies were included if they focused on hotels, accommodation establishments, resorts, lodges, or related accommodation businesses in Sub-Saharan Africa. Eligible studies had to be related to environmental sustainability, environmental management, green practices, environmentally friendly practices, environmental performance, green innovation, or other environmental issues related to hotel operations. Studies published in academic journals were preferred, and these studies had been peer-reviewed. Qualitative and mixed-methods studies

were eligible because the literature shows that many different methodologies exist within these categories. Studies exploring energy, water, waste and recycling, sustainability procurement, environmental governance, green technologies, environmental reporting, or environmental management systems or sustainability practices were eligible. Studies with one or more Sub-Saharan countries were included. Comparative studies were kept when the Sub-Saharan element could be distinguished and was relevant to the review questions.

3.6 Exclusion criteria

Studies that did not include any significant hotel or accommodation aspect were excluded. Studies that only discussed tourism destinations, communities, protected areas, agriculture, transport, airlines, or other aspects without any substantial hotel or accommodation aspect were excluded. Studies not conducted in Sub-Saharan Africa were not included. Studies that only discussed sustainability in general, without discussing environmental practices or environmental management in hotel, were not included. Duplicates were removed. The final analytical sample did not include conference papers, book chapters, editorials, opinion pieces or other publications that did not present sufficient evidence for the review. Secondary reviews were included for contextual understanding but not as primary empirical evidence in the thematic synthesis.

3.7 Data extraction

The information that was extracted from eligible studies was recorded using a structured extraction matrix. Information was extracted from the authors' data regarding the author, year, country, hotel or accommodation environment, study objective, study methodology, sample size, data collection, environmental practices studied, drivers, barriers, reported outcomes, and major findings. The extraction process enabled comparison of evidence across different countries and research designs and supported the identification of recurring themes.

3.8 Data analysis

Because the included studies differed substantially in research design, geographical setting, variables, and reported outcomes, statistical meta-analysis was not considered appropriate. A narrative thematic synthesis was therefore undertaken. The extracted findings were organised into four overarching analytical domains: sustainable environmental practices, drivers and enabling conditions, barriers and implementation constraints, and environmental and organisational outcomes. Within these domains, recurring themes were identified and compared across countries and hotel contexts.

3.9 PRISMA study-selection process

The review followed the four stages of identification, screening, eligibility, and inclusion. At the identification stage, 347 records were retrieved from Scopus and Web of Science. Records were subsequently screened for relevance to hotels, environmental sustainability, and Sub-Saharan Africa. Potentially relevant records were subjected to full-text assessment against the predefined eligibility criteria.

Fig 1 database search identified 347 records, comprising 184 records from Scopus and 163 from Web of Science. Following the removal of 60 duplicate records, 287 records remained for screening. The titles, keywords, and abstracts of these records were examined for relevance to the review's focus on sustainable environmental practices in the hotel industry in Sub-Saharan Africa. Following this screening process, 95 reports were retained for full-text assessment, while 192 records were excluded because they did not meet the relevance criteria. The full texts of the 95 reports were subsequently assessed against the eligibility criteria, resulting in the exclusion of 63 reports. Consequently, 32 studies were included in the final systematic literature review and thematic synthesis.

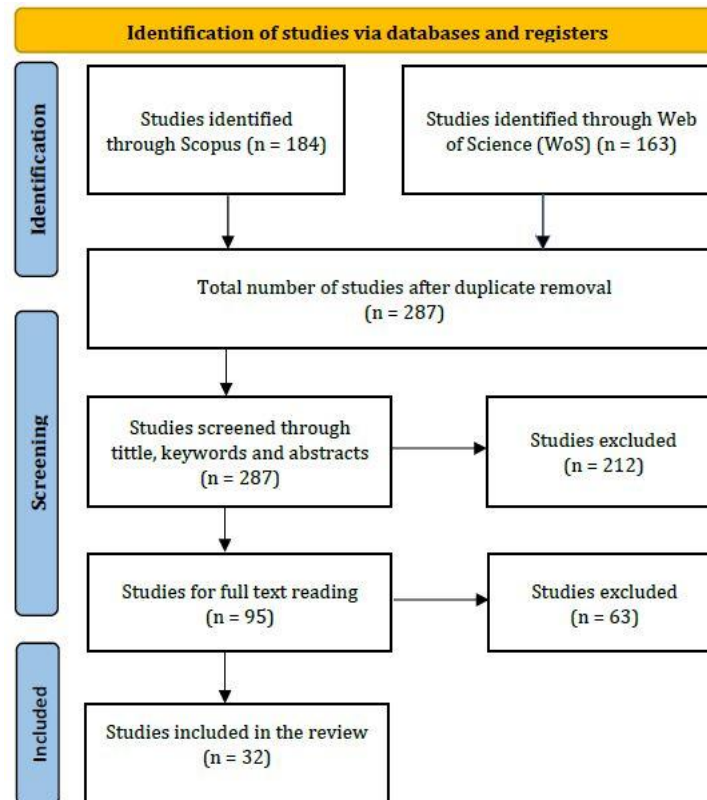


Fig 1. PRISMA flow chart showing the search strategy and selection of included (Moher et al., 2009)

4. Results

4.1 General characteristics of the evidence

The 32 studies included in the final synthesis demonstrate a growing interest in environmental sustainability within the Sub-Saharan African hotel industry. The literature covers a range of countries, including Ghana, Kenya, Malawi, South Africa, Tanzania, Uganda, Nigeria, Ethiopia and Zimbabwe. The studies employ qualitative, quantitative and mixed-method designs, including surveys of hotel managers and employees, interviews, case studies, documentary analysis and statistical modelling. The evidence also covers different hotel categories, ranging from small and medium establishments to luxury and five-star hotels, urban hotels, rural hotels, resorts and eco-rated lodges. This diversity is important because environmental practices are not implemented under identical organisational or geographical conditions.

4.2 Energy management and conservation

Energy conservation represents one of the most consistently reported environmental practices. Hotels employ energy-efficient lighting, sensors, key-card systems, energy-efficient appliances, monitoring systems, and, in some contexts, renewable energy technologies. Research in Ghana found that energy conservation and energy monitoring were among the major green practices adopted by star-rated hotels (Sarkodie Amoako et al., 2024). In Uganda, energy conservation was identified among the major practices implemented by five-star hotels, with reported benefits including cost savings and improved competitiveness (Barakagira & Paapa, 2024). Evidence from Tamale similarly highlights the importance of sustainable energy systems but indicates that implementation can be constrained by cost and limited understanding of green policies (Appiah et al., 2024). Renewable energy is a more technically challenging aspect. The findings suggest that the adoption of renewable energy provides environmental and economic opportunities, but is also hampered by a lack of technological awareness, financing, and policy implementation, especially in the case of Malawi.

4.3 Water conservation

Another key theme is water conservation. Practices involve water-saving devices, low-flow technologies, maintenance of plumbing infrastructure, monitoring, and reuse of water. Research in Ghana shows that hotels take steps to save water and reduce water loss, such as ensuring they have sanitary equipment and pipes ([Sarkodie Amoako et al., 2024](#)). Resort hotels have adopted a variety of practices, including the use of low-flow technologies and water reuse, which are supported by evidence from Ethiopia. Water conservation has also been identified as one of the green practices that occur in Kenyan hotels, though this is not necessarily correlated with the other sustainability outcomes in different contexts ([Obegi et al., 2025](#)). This finding confirms that water conservation is a widely accepted practice, but it is not always measured or formally incorporated into hotel environmental management practices.

4.4 Waste management and recycling

Waste management emerges as a central environmental sustainability challenge. Hotels generate food waste, packaging waste, plastics, wastewater, and other forms of solid and liquid waste. Studies across Ghana, Kenya, Nigeria, South Africa, Malawi and Zimbabwe identify recycling, waste reduction, reuse and waste management as important environmental practices. However, the Nigerian evidence illustrates the scale of the implementation problem, with Idoko et al. ([2025](#)) reporting that a substantial proportion of hotels in Lokoja lacked structured waste-disposal methods. In Zimbabwe, sustainable practices involving recycling, reuse, and the sale or processing of waste were associated with resource efficiency and operational benefits ([Muchingami et al., 2025](#)). These findings suggest that waste management can simultaneously serve environmental and economic objectives when appropriate systems are available.

4.5 Green purchasing and sustainable procurement

Green purchasing is increasingly represented within the literature. Environmentally responsible procurement includes purchasing local products, environmentally friendly cleaning products, and products with reduced environmental impacts. Research in Uganda identified environmental purchasing as one of the green practices implemented by five-star hotels ([Barakagira & Paapa, 2024](#)). Research in Samburu County, Kenya, found eco-friendly purchasing to be an important predictor of sustainable hotel operations ([Obegi et al., 2025](#)). Evidence from Ethiopia also identified local purchasing among the environmental practices adopted by resort hotels ([Kassim, 2024](#); [Melese et al., 2026](#)). This suggests that environmental sustainability extends beyond energy and water management into hotel supply chains and procurement decisions.

4.6 Environmental policies, governance and reporting

Formal environmental governance appears less consistently developed than individual operational practices. Ghanaian research shows that larger hotels are more likely to have written environmental policies, designated environmental responsibilities, action plans, and certification-related initiatives ([Mensah & Blankson, 2014](#)). However, evidence from Malawi indicates weaknesses in policy implementation and enforcement. Khonje et al. ([2021](#)) found that the National Tourism Policy did not sufficiently facilitate the enforcement of sustainable environmental practices in hotels. Environmental reporting also remains uneven. Franklin ([2024](#)) found relatively strong performance in environmental policy and initiatives among Ghanaian hotels but weaker performance in pollution management, environmental reporting elements, and audit/compliance categories. The study also identified differences in environmental disclosure according to hotel star rating. The evidence therefore indicates a distinction between having environmental awareness or isolated practices and embedding environmental sustainability into formal organisational governance.

4.7 Management commitment

Management commitment is a particularly important cross-cutting theme. Studies indicate that environmental practices are more likely to be implemented when managers provide organisational support, establish policies, allocate responsibilities, and integrate environmental objectives into hotel operations. Mensah and Blackson (2014) showed that larger and upscale hotels were more environmentally committed. According to Mbise and Mbimgure (2023), management commitment positively affected the implementation of environmental management in hotels in Tanzania. Recent studies in South Africa also show that sustainability is now part of the organizational culture and management practices, but the implementation is limited due to structural barriers (Nong et al., 2026). Management commitment thus seems to serve as a facilitating mechanism between environmental awareness and implementation.

4.8 Financial and infrastructure constraints

Financial limitations are among the most consistently identified barriers. Green technologies, renewable energy systems, water-saving infrastructure, and environmental management systems may require significant initial investment. Research in Nigeria identifies financial constraints, weak regulatory oversight, and limited awareness as barriers to sustainable practices (Idoko et al., 2025). Research in Kaduna similarly identifies high investment costs and inadequate skills as constraints despite the long-term profitability associated with green practices (Abdullahi et al., 2026). South African evidence identifies infrastructural instability and high initial investment costs as constraints in luxury hotels (Nong et al., 2026). The evidence therefore suggests that environmental sustainability in Sub-Saharan African hotels cannot be separated from the financial and infrastructural conditions under which hotels operate.

4.9 Knowledge, awareness and employee capacity

Lack of knowledge and awareness is another recurring barrier. Research in Malawi indicates that inadequate understanding of environmental sustainability can constrain implementation, while research in Kenya shows that hotels may lack awareness and guidance concerning implementation strategies (Khonje et al., 2021; Kamunzyu et al., 2025). Employee training is consequently identified as an important intervention. Environmental practices require employees to change operational routines, monitor resource consumption, manage waste and communicate sustainability initiatives to guests. Without adequate knowledge, and organisational support, sustainability practices may remain isolated or inconsistently implemented.

4.10 Customer expectations and market considerations

Customer expectations are increasingly associated with environmental sustainability. Research shows that customer demand, environmental awareness, and competitiveness are factors that affect the adoption of green practices by the hotel industry. Factors influencing customer adoption identified in the research in Ghana include customer demand and competitive advantage (Sarkodie Amoako et al., 2024). The positive relationship between the hotel's sustainability activities and its guests' citizenship behavior is also found in studies conducted among guests of star-rated hotels, which shows that the presence of sustainability practices in the hotel can affect the guests' responses (Boadi Nyamekye et al., 2025). Meanwhile, there can also be challenges for implementation if a customer's expectation of service quality conflicts with sustainability measures, as is the case for hotels.

5. Discussion

The synthesis reveals two main features of the state of environmental sustainability in Sub-Saharan African hotels: Firstly, a lot of awareness, and secondly, a lack of uniformity in the implementation and institutionalisation of sustainable practices. A growing number of hotels are aware of the significance of environmental practices, but the data do not suggest there has been a universal embrace of sustainability in hotel systems. Those most consistently practiced are relatively direct operational interventions such as environmental protection, energy saving, water management and environmentally responsible purchasing. These practices can bring about some

short-term benefits in a hotel's operations and thus be practically relevant to the hotel manager. The evidence from Ghana, Uganda, Kenya, Ethiopia and Zimbabwe demonstrates that resource conservation can produce both environmental and economic benefits ([Barakagira & Paapa, 2024](#); [Sarkodie Amoako et al., 2024](#); [Obegi et al., 2025](#); [Muchingami et al., 2025](#)).

However, more advanced forms of environmental management appear to be less consistently implemented. In the context of formal environmental policies, environmental targets, certification, carbon-offset programmes, environmental reporting, and renewable-energy systems, there is a need to improve organizational capacities and financial resources. Evidence from Ethiopia, Ghana and Malawi illustrates this distinction between individual environmental practices and comprehensive environmental management systems ([Kassim, 2024](#); [Franklin, 2024](#); [Khonje et al., 2021](#)). The second key finding is that of the importance of organizational commitment. Environmental sustainability is not just a technological matter. Whether resources are dedicated to green technologies, whether employees are trained, whether environmental targets are set, and whether environmental performance is monitored depends on management decisions. Management commitment and organizational culture are important, as supported by the findings of the studies done by Mensah and Blankson ([2014](#)), Mbise & Mungure ([2023](#)), and Nong et al. ([2026](#)).

In the third, the interplay of institutional and organizational factors is discussed. Hotels are run in regulatory contexts that can promote or inhibit sustainability. If environmental policies are poorly enforced, the hotels may not have the incentive to go beyond the basic measures. The Malawi evidence is also valuable in showing that having a policy does not necessarily mean it is effectively implemented ([Khonje et al., 2021](#)). Likewise, the Nigerian evidence suggests that weak regulatory supervision is a problem for the environment ([Idoko et al., 2025](#)). The fourth finding relates to the economic aspect of environmental sustainability. In the literature, the relationship between resource efficiency and cost savings, profitability, and competitiveness is often linked to investment in environmental practices. This indicates that environmental sustainability and business sustainability should not necessarily be conceptualized as competing objectives. Rather, carefully implemented resource-efficiency measures can contribute simultaneously to environmental protection and hotel performance.

However, results show that high initial investments are still a major obstacle. This poses an important policy question, as smaller, less resourced hotels may not possess the same financial and technical resources as larger or upscale hotels. Recurring relationships obtained from Ghana's data between the hotel category and environmental performance imply that organizational resources can have a role to play in influencing sustainability capacity ([Mensah, 2006](#); [Mensah, 2014](#)).

6. Integrated Conceptual Framework

The synthesis is consistent with an integrated conceptual framework where four groups of conditions- institutional, organizational, technological, and market conditions- influence environmental sustainability practices. The framework starts by identifying the drivers and the enabling conditions, such as regulatory requirements, management commitment, environmental awareness, customer expectations, cost competition, technology, and sustainability standards. These drivers affect the adoption of sustainable environmental practices such as energy efficiency, water management, waste management and recycling, renewable energy, green procurement, environmental monitoring, green technologies, and environmental management policies. Implementation is dependent on organizational and contextual factors such as finance, infrastructure, knowledge of employees, management capacity, availability of suppliers, regulatory enforcement, and stakeholder involvement. Environmental practices have environmental and organizational outcomes, such as reduction of resource consumption, reduction of waste, improvements in environmental performance, cost savings, operational efficiency, customer satisfaction, reputation, and competitive position.

This framework can then be realized conceptually as: the shift to sustainable environmental practices depends on the following (in turn) on drivers and enablers. The relationship is not necessarily linear. Positive environmental and organizational outcomes can reinforce management commitment and promote additional environmental investment, leading to feedback.

7. Research gaps

The first significant one is geographical. There are multiple references to a variety of countries in Sub-Saharan Africa, but the evidence is not balanced. The literature review shows a high frequency of Ghana and Kenya, but others are less represented. More country-to-country comparative research will be beneficial to identify what sustainability issues are local and what are common to the region. The second gap is methodological. The literature mostly uses cross-sectional surveys and/or interviews. The designs offered here help understand perceptions and existing environmental practices, but a longitudinal design is required to establish the extent to which environmental practice is maintained over time and the effects of particular interventions on environmental performance. The third challenge is related to measurement. Various definitions and indicators of environmental sustainability are used in studies. Some focus on specific practices, like energy or water conservation, while others rely on more general sustainability indicators.

More uniform hotel environmental sustainability indicators would make it possible to compare across countries. The fourth gap relates to small and medium-size hotels. Hotels may also be a significant contributor to hotel accommodation, and larger, higher-rated hotels often exhibit greater environmental management. Further research is needed to identify financial, technical, and organizational challenges to smaller hotels. The fifth gap relates to implementation, not adoption. Many of the studies in the literature question whether hotels have become green, some of which examine how green practices are integrated into daily hotel operations. The Kenyan evidence shows that there is a need to go beyond adoption to implementation capability (Kamunzyu et al., 2025). The sixth gap is related to the environmental outcome. While numerous studies have described the existence or absence of practices, fewer studies have measured reductions in energy consumption, water consumption, waste generation, emissions, or environmental impacts. Future research should consequently be directed more towards measurable environmental performance.

8. Theoretical implications

Based on the literature reviewed, there is no single theoretical perspective that fully addresses the concept of environmental sustainability in Sub-Saharan African hotels. Theories used in the studies are based on the Technology Organisation Environment framework, Diffusion of Innovation Theory, Social Exchange Theory, Norm Activation Theory, the Triple Bottom Line, and organizational sustainability perspectives. The evidence indicates that seeing the project from an integrated perspective might be especially valuable. The framework of Technology-Organization-Environment brings to the fore the technology, organization, and environment conditions that affect the adoption of sustainability (Martín et al., 2024). According to Khonje et al. (2020), the Diffusion of Innovation Theory can be used to describe the diffusion of environmental innovations into the accommodation industry, and the relationship between environmental, social, and economic sustainability, the Triple Bottom Line can be used (Abdullahi et al., 2026). The review thus confirms a multidimensional conceptualization of hotel environmental sustainability, which is developed by the combination of technology, organizational capacity, institutional governance, market expectations, and the economy.

9. Practical implications

The findings suggest that hotel management should not stop at the measure of switching off lights, recycling waste, etc., but should implement integrated environmental management systems. To help build the sustainability of hotels, the following environmental actions can be taken: Hotel

policy development, task ownership, tracking resource usage, employee training, and environmental assessment. The results emphasize the need for good implementation and enforcement of environmental legislation on the part of the governments and tourism authorities. Policies should be accompanied by practical guidelines, incentives, technical support, and monitoring mechanisms. Financial institutions and development agencies can also contribute by improving access to green financing for hotels, particularly small and medium-sized establishments. Renewable energy, water-saving infrastructure, waste-treatment systems and energy-efficient technologies often require initial capital investment that may exceed the capacity of smaller establishments. For hotel employees, environmental training is important because many sustainability practices depend on daily operational behaviour. Employee participation should therefore be integrated into environmental management programmes rather than treated as an additional activity. For customers, improved communication can strengthen participation in hotel sustainability initiatives. However, communication should be supported by substantive environmental action so that sustainability claims correspond with actual practices.

10. Limitations of the review

This review has several limitations. *First*, the evidence base was restricted to studies indexed in Scopus and Web of Science. Relevant studies published in other databases or outlets may therefore not have been captured. *Second*, the review was restricted to the accessible English-language literature. This may have excluded relevant studies published in other languages. *Third*, substantial methodological heterogeneity existed among the included studies. Differences in samples, hotel categories, geographical settings, environmental indicators, and analytical methods prevented statistical meta-analysis. *Fourth*, the available review documentation confirms 347 records identified and 32 studies included but does not provide the complete original screening log required to independently reconstruct every intermediate PRISMA number. Accordingly, the review does not estimate the number of duplicate records or stage-specific exclusions retrospectively. *Finally*, the findings reflect the evidence reported by the included studies and should not be interpreted as a direct measurement of environmental performance across all hotels in Sub-Saharan Africa.

11. Conclusion

This systematic literature review synthesised evidence concerning sustainable environmental practices in the Sub-Saharan African hotel industry. Based on 347 records identified through Scopus and Web of Science, 32 studies were included in the final qualitative synthesis. The evidence shows ways in which environmental sustainability has been added to the hotel business in the region. The most common practices reported are energy conservation, water management, waste reduction and recycling, environmentally responsible purchasing and green technologies. The extent of implementation can, however, differ widely depending on the type of hotel, management buy-in, economic resources, facility, employee expertise, legislation and market sentiment. The review illustrates that environmental sustainability cannot be achieved by just adding one green technology at a time. To be effective, organisational commitment, employee participation, financial support, enabling structures, suitable technologies and good institutional governance are needed. The evidence additionally indicates that good environmental practice can deliver both environmental and organisational outcomes, such as resource efficiency, cost savings, competitiveness and better stakeholder perceptions. The current biggest hurdle for the sub-Saharan hotel industry is, however, to move from fragmented environmental projects to systematic, measurable and institutionally embedded environmental management. There is a need for further research to focus more on longitudinal studies, as well as cross-country comparisons, particularly in the small and medium-sized hotel sector, measurable environmental outcomes, and how environmental policies are operationalised in practice.

Acknowledgments

First of all, I give gratitude to God for giving me strength, wisdom, patience and perserverence throughout the process of writing and completing research articles. The journey of academic reseach is demanding, and I am grateful for the guidance and courage that have enabled me to continue though hard times. I also acknowlodge and honour my ancestors (oNozulu, oMpafane, oRhadebe, oMthimkhulu, oNtumeza, oMatshetshe, oGcwanini, oSbewu) whose presence, strength, and enduring legacy continue to inspire me. I am great full for the foundation they have provided and for the spiritual strength that reminds me to remain resilient, focused, and committed to my academic journey. I am truly grateful to God, my ancestors, and all those who have supported me on my journey. This is a testament to a dedication to learning, a resolute spirit, and commitment to a forward thinking mindset.

References

1. Abdullahi, S. L., Ahmed, A. M., Mohammed, H. I. & Baba, S. U. 2026. An assessment of sustainable practices in the hospitality industry in Kaduna Metropolis, Nigeria. *Kaduna Journal of Geography*, 8(1), 90-98. <https://doi.org/10.47514/kjg.2026.08.01.011>
2. Antonova, N., Gutiérrez-Taño, D., & Ruiz-Rosa, I. 2026. Exploring residents' perceptions of the hotel industry's impact on water resources. *International Journal of Tourism Research*, 28(2), e70291. <https://doi.org/10.1002/jtr.70291>
3. Appiah, P. A., Adongo, R., & Safo, R. R. 2024. Sustainable energy systems and green hotel practices in hotels in Tamale Metropolis, Ghana. *Journal of Environmental Management and Tourism*, 7(71), 1-24. [https://doi.org/10.14505/jemt.v14.7\(71\).09](https://doi.org/10.14505/jemt.v14.7(71).09).
4. Aydoğan, H., & Talay, Ö. 2025. The 60-year journey of communication in tourism: A bibliometric analysis. *South African Journal of Economic and Management Sciences* 28(1), a6236. <https://doi.org/10.4102/sajems.v28i1.6236>
5. Barakagira, A., & Paapa, C. 2024. Green practices implementation for environmental sustainability by five-star hotels in Kampala, Uganda. *Environment, Development and Sustainability*, 26(4), 9421-9437. <https://doi.org/10.1007/s10668-023-03101-7>
6. Baryiri, J. M., Fagbemi, E. O., Kunkuni, N. Y., Apori, A. A., Kyei, B. D., Amponsah, R. A., Darko, M., & Botwe, B. 2026. Economic sustainability practices in Ghana's hotel industry: A critical review of energy efficiency, digital transformation, and revenue diversification. *Journal of African Sustainable Development*, 11(2). <https://doi.org/10.70382/bejasd.v11i2.062>
7. Birkle, C., Pendlebury, D. A., Schnell, J., & Adams, J. 2020. Web of Science as a data source for research on scientific and scholarly activity. *Quantitative Science Studies*, 1(1), 363-376. https://doi.org/10.1162/qss_a_00018
8. Blanco-Moreno, S., Aydemir-Dev, M., Santos, C. R., & Bayram-Arli, N. 2024. Emerging sustainability themes in the hospitality sector: A bibliometric analysis. *European Research on Management and Business Economics*, 31(1), 1-16. <https://doi.org/10.1016/j.iedeen.2025.100272>
9. Boadi Nyamekye, M., Shika Andoh, J. A., Ayiku, A., Okoe Quarcoe, J. & Kantanka, A. S. 2025. Investigating sustainability practices of star-rated hotels and customer citizenship behavior: Empirical insights from Sub-Saharan Africa. *Academy of Marketing Studies Journal*, 30(1), 1-15.
10. Chamdimba, H. B. & Banda, E. M. 2025. A review of the adoption of renewable energy technologies by hotels in Malawi. *Journal of Energy in Southern Africa*, 36(1), 1-11. <https://doi.org/10.17159/2413-3051/2025/v36i1a16047>
11. Changalima, I. A. & Kimario, H. F. 2025. Tourism supply chain management: A bibliometric analysis of data from Scopus and Web of Science (2001–2023). *Tourism Critiques*, 6(1). 18-35. <https://doi.org/10.1108/TRC-03-2024-0010>
12. Diaz-Farina, E., Díaz-Hernández, J. J., & Padrón-Fumero, N. 2023. Analysis of hospitality waste generation: Impacts of services and mitigation strategies. *Annals of Tourism Research Empirical Insights*, 4(1), 100083. <https://doi.org/10.1016/j.annale.2022.100083>

13. Franklin, B. 2024. Analysis of environmental reporting practices in hospitality industry in Ghana. *Financial Markets, Institutions and Risks*, 8(2), 165-185.
[https://doi.org/10.61093/fmir.8\(2\).165-185.2024](https://doi.org/10.61093/fmir.8(2).165-185.2024)
14. González-Viralta, D., Veas-González, I., Egaña-Bruna, F., Vidal-Silva, C., Delgado-Bello, C., & Pezoa-Fuentes, C. 2023. Positive effects of green practices on the consumers' satisfaction, loyalty, word-of-mouth, and willingness to pay. *Heliyon*, 9(10), e20353.
<https://doi.org/10.1016/j.heliyon.2023.e20353>
15. Hossain, M. I., Jamadar, Y., Islam, M. F., Rashed, M., & Akter, T. 2025. Environmental sustainability practices in SMEs: Insights from integrated PLS-SEM and fsQCA approaches. *Journal of Cleaner Production*, 503(2025), 145185.
<https://doi.org/10.1016/j.jclepro.2025.145185>
16. Idahosa, L. O. 2018. Environmental sustainability and tourism accommodation in South Africa: The managers' perspective. *EuroEconomica*, 37(2), 259-275.
17. Idoko, O., Ogunkolu, A. B. & Idakwoji, M. L. 2025. Environmental impact and sustainable practices in hotels: A case study of Lokoja, Kogi State, Nigeria. *Journal of Geography, Environment and Earth Science International*, 29(7), 49-65.
<https://doi.org/10.9734/jgeesi/2025/v29i7917>
18. Kamunzyu, E., Makopondo, R., & Opondo, J. 2024. Analysis of effects of green practices on sustainability in urban hotels in Kenya. *African Journal of Hospitality, Tourism and Leisure*, 13(3), 589-596. <https://doi.org/10.46222/ajhtl.19770720.543>
19. Kamunzyu, E., Opondo, J., & Makopondo, R. 2025. Green practice implementation strategies and sustainability: A case of Kenya's city hotels. *Research in Hospitality Management*, 15(2), 139-149. <https://doi.org/10.1080/22243534.2025.2487482>
20. Kassim, M. A. (2024). Environmental sustainability practices in hotels: From attitudes to implementation: Case of resort hotels in Bishoftu, Ethiopia. *In Sustainable Development. IntechOpen*. <https://doi.org/10.5772/intechopen.109433>
21. Khonje, L. Z., Bello, F. G., & Sepula, M. B. 2021. Sustainable environmental practices in Malawian hotels. *African Journal of Hospitality, Tourism and Leisure*, 10(1), 376-387.
<https://doi.org/10.46222/ajhtl.19770720-106>
22. Khonje, L. Z., Simatele, M. D., & Musavengane, R. 2020. Environmental sustainability innovations in the accommodation sub-sector: Views from Lilongwe, Malawi. *Development Southern Africa*, 37(2), 312-327. <https://doi.org/10.1080/0376835X.2019.1660861>
23. MacAskill, S., Becken, S., & Coghlan, A. 2023. Engaging hotel guests to reduce energy and water consumption: A quantitative review of guest impact on resource use in tourist accommodation. *Cleaner and Responsible Consumption*, 11, 100156.
<https://doi.org/10.1016/j.clrc.2023.100156>
24. Mäenpää, T., Suominen, T., Asikainen, P., Maass, M., & Rostila, I. 2009. The outcomes of regional healthcare information systems in health care: A review of the research literature. *International Journal of Medical Informatics*, 78(11), 757-771.
<https://doi.org/10.1016/j.ijmedinf.2009.07.001>
25. Makoondlall-Chadee, T., & Bokhoree, C. 2024. Environmental sustainability in hotels: A review of the relevance and contributions of assessment tools and techniques. *Administrative Sciences*, 14(12), 320. <https://doi.org/10.3390/admsci14120320>
26. Martín, L. M., Moreno-Luna, L., Roets, A. O. S. B., & Al-Jaberi, S. 2024. Technological, organisational and environmental drivers of sustainability in hotels. *South African Journal of Business Management*, 55(1), a4815. <https://doi.org/10.4102/sajbm.v55i1.4815>
27. Marfo, M., Armah, A. A., Ofei, E. F., Ofei, E. B., Adadevoh, L., & Asante, C-R. 2024. The influence of green innovations on the environmental performance of the hotel industry in Ghana: Does the moderating role of green transformational leadership matter? *International Journal of Religion*, 5(11), 1562-1578. <https://doi.org/10.61707/pzqk1456>
28. Mbasera, M., Du Plessis, E., Saayman, M., & Kruger, M. 2016. Environmentally-friendly practices in hotels. *Acta Commercii*, 16(1), a362. <http://dx.doi.org/10.4102/ac.v16i1.362>

29. Mbise, N. N., & Mungure, M. J. 2023. Influence of management commitment in the implementation of hotel environmental management practices and its effect on business sustainability among hotels in Tanzania. *International Journal of Current Science Research and Review*, 6(2), 1664-1684. <https://doi.org/10.47191/ijcsrr/V6-i2-87>
30. Mbugua, J. C. N, Ondabu, I. T., & Sporta F. O. 2026. Influence of environmental practices on sustainable development of the Sub-Saharan African countries. *Open Research Africa*, 9:10 <https://doi.org/10.12688/openresafrika.16443.2>
31. Mensah, I. 2006. Environmental management practices among hotels in the Greater Accra Region. *International Journal of Hospitality Management*, 25(3), 414-431. <https://doi.org/10.1016/j.ijhm.2005.02.003>
32. Mensah, I. 2014. Different shades of green: Environmental management in hotels in Accra. *International Journal of Tourism Research*, 16(5), 450-461. <https://doi.org/10.1002/jtr.1939>
33. Mensah, I. & Blankson, E.J. (2014). Commitment to environmental management in hotels in Accra. *International Journal of Hospitality & Tourism Administration*, 15(2), 150–171. <https://doi.org/10.1080/15256480.2014.901064>
34. Memon, S. B., Rasli, A., Dahri, A. S., & Hermilinda Abas, I. 2022. Importance of top management commitment to organizational citizenship behaviour towards the environment, green training and environmental performance in Pakistani industries. *Sustainability*, 14(17), 11059. <https://doi.org/10.3390/su141711059>
35. Melese, K. B., Dando, H. S., & Alemayehu Dubale, S. 2026. Sustainable business practices in the hospitality industry of Wolaita-Sodo town: An environmental sustainability perspective. *Sustainable Futures*, 12, 102004. <https://doi.org/10.1016/j.sftr.2026.102004>
36. Milla-Amekor, E. E. 2024. Green packaging and environmental safety in Ghana's hospitality industry: A systematic review. *International Journal of Environment and Climate Change*, 14(8), 99-108. <https://doi.org/10.9734/ijecc/2024/v14i84333>.
37. Milla-Amekor, E. E. 2025. Environmental sustainability practices and commitment in Ghanaian hotels: An empirical study. *International Journal of Environment and Climate Change*, 15(4), 413-422. <https://doi.org/10.9734/ijecc/2025/v15i44821>
38. Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The, P. G. 2009. Preferred reporting Items for systematic reviews and Meta-Analyses: The PRISMA statement. *PLOS Medicine*, 6(7), e1000097, <http://doi.org/10.1371/journal.pmed.1000097>
39. Moisesescu, O. I., & Gică, O. A. (2020). The Impact of Environmental and Social Responsibility on Customer Loyalty: A Multigroup Analysis among Generations X and Y. *International Journal of Environmental Research and Public Health*, 17(18), 6466. <https://doi.org/10.3390/ijerph17186466>
40. Muchingami, A., Basera, V., Mashoko, D., & Bhasopo, T. 2025. Sustainable tourism practices adopted by the hotel sector in Zimbabwe: Hotel managers' perceptions. *Journal of Sustainable Tourism and Entrepreneurship*, 7(1), 35-45. <https://doi.org/10.35912/joste.v7i1.2491>
41. Musau, J., Mapelu, I., & Njeri, A. K. 2024. Perspectives of urban hotel managers and guests on environmental, social, and economic sustainability practices. *International Journal of Research and Innovation in Social Science*. 8(3s), 1521-1538. <https://dx.doi.org/10.47772/IJRISS.2024.803107S>
42. Nagiah, G. R., & Mohd Suki, N. 2024. Linking environmental sustainability, social sustainability, corporate reputation and the business performance of energy companies: Insights from an emerging market. *International Journal of Energy Sector Management*, 18(6), 1905-1922, <https://doi.org/10.1108/IJESM-06-2023-0003>
43. Nong, T., Kleynhans, C., Roeloffze, A., & Roberson, J. R. 2026. From compliance to culture: Managerial perceptions of environmental sustainability in five-star hotels in Gauteng, South Africa. *Sustainability*, 18(6), 3045. <https://doi.org/10.3390/su18063045>
44. Obegi, M., Kariuki, A., & Mwangi, P. 2025. Green practices and sustainable operations in rural hotels: Evidence from Samburu County, Kenya. *Journal of Hospitality and Tourism Management*, 8(2), 29-36. <https://doi.org/10.53819/81018102t3155>

45. Oriade, A., Osinaike, A., Aduhene, K., & Wang, Y. 2020. Sustainability awareness, management practices and organisational culture in hotels: Evidence from developing countries. *International Journal of Hospitality Management*, 92, 102699. <https://doi.org/10.1016/j.ijhm.2020.102699>
46. Osorio-Molina, F. M., Muñoz-Benito, R., & Pérez-Neira, D. 2023. Empirical evidence, methodologies and perspectives on tourism, energy and sustainability: A systematic review. *Ecological Indicators*, 155, 1-10. <https://doi.org/10.1016/j.ecolind.2023.110929>
47. Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., McGuinness, L. A., Stewart, L. A., Thomas, J., Tricco, A. C., Welch, V. A., Whiting, P., & Moher, D. 2021. The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
48. Prakash, S., Sharma, V. P., Singh, R., Vijayvargy, L., & Nilaish. 2023. Adopting green and sustainable practices in the hotel industry operations- an analysis of critical performance indicators for improved environmental quality. *Management of Environmental Quality: An International Journal*, 34(4), 1057-1076. <https://doi.org/10.1108/MEQ-03-2022-0090>
49. Prancutè, R. 2021. Web of Science (WoS) and Scopus: The titans of bibliographic information in today's academic world. *Publications*, 9(1), 12. <https://doi.org/10.3390/publications9010012>
50. Ramos-Giral, G. V., Constantin, C. P., & Pérez Lavandera, R. 2025. Marketing and innovation in tourism: An analysis of scientific production in Scopus and WoS. *Sustainability*, 17(24), 11244. <https://doi.org/10.3390/su172411244>
51. Rasethuntsa, B. C., & Maeti, G. 2025. Environmental sustainability practices implemented by South Africa's leading accommodation establishments. *Business, Management and Economics, IntechOpen*. <https://doi.org/10.5772/intechopen.115532>
52. Sarkodie Amoako, N., Acquah, H. E. A. & Dery, J. 2024. How green are hotels in Ghana? Evidence from star-rated hotels in Kumasi Metropolitan Area. *ASEAN Journal on Hospitality and Tourism*, 22(3), 282-297. [https://doi.org/10.14505/jemt.v15.3\(75\).06](https://doi.org/10.14505/jemt.v15.3(75).06)
53. Schoeman, R., & Davis, N. 2026. Rules and regulations in eco-estates of Johannesburg, South Africa: investigating their role in green governance and pro-environmental practices. *South African Geographical Journal*, 108(1). <https://doi.org/10.1080/03736245.2025.2472667>
54. Shasha, Z. T. 2025. Environmental management practice of newly-built hotels in Western Province of South Africa. *International Journal of Applied Research in Business and Management*, 6(1), 1-14. <https://doi.org/10.51137/wrp.ijarbm.2025.zses.45684>
55. Shava, H. 2025. Enhancing customer happiness through green practices, engagement, brand experience and attachment in South Africa's hotel sector: a mediation approach. *Cogent Social Sciences*, 11(1), 1-19. <https://doi.org/10.1080/23311886.2025.2482118>
56. Shereni, N. C., Rogerson, C. M. 2025. Sustainability practices in the hospitality sector of Zimbabwe: A spatial view. *Studia Periegetica*, 3(43), 1-20. <https://doi.org/10.58683/sp.595>
57. Shin, H., Jo, Y., Lee, S., Park, J., Cho, J., & Kim, H. 2026. ESG for Sustainability in Hospitality and Tourism: A Theoretical and Practical Review With a Future Research Agenda. *Journal of Travel Research*, 65(1), 3-36. <https://doi.org/10.1177/00472875251363629>
58. Suluo, S. J., Mossberg, L., Andersson, T. D., Anderson, W., & Assad, M. J. 2023. Corporate sustainability practices in tourism: Evidence from Tanzania. *Tourism Planning & Development*, 20(5), 747-768. <https://doi.org/10.1080/21568316.2020.1850515>
59. Sun, J., & Nasrullah, A. 2024. Green transition in the hospitality industry: The influence of market forces and customer dynamics on sustainable performance in the digital era. *Heliyon*, 10(8), e29563. <https://doi.org/10.1016/j.heliyon.2024.e29563>
60. Surbakti, R. T., Hanoum, S., Anshori, M. Y., Korpysa, J., & Shubbak, M. 2025. Green practices in business: A systematic review in enhancing environmental and economic sustainability. *International Journal of Sustainable Development and Planning*, 20(6), 2445-2454. <https://doi.org/10.18280/ijstdp.200614>

61. Tokro, L. S., & Dzitse, C. D. 2024. Barriers to the adoption of sustainability practices in small hotel businesses: a qualitative study in Ghana. *Research Journal of Business and Management (RJBM)*, 11(1), 36-50. <http://doi.org/10.17261/Pressacademia.2024.1888>
62. Yacob, P., Wong, L. S., & Khor, S. C. 2019. An empirical investigation of green initiatives and environmental sustainability for manufacturing SMEs. *Journal of Manufacturing Technology Management*, 30(1), 2-25. <https://doi.org/10.1108/JMTM-08-2017-0153>
63. Yang, M. J. H., Ting, A., Nimri, R., & Je, J. S. 2026. Deciphering the green hotel enigma: An in-depth analysis of literature. *International Journal of Hospitality Management*, 133, 104413. <https://doi.org/10.1016/j.ijhm.2025.104413>
64. Zhang, B., & Jung, S. 2025. How Environmental, Social, and Governance (ESG) Activities Relate to Hotel Booking Intentions: Evidence from PLS-SEM and fsQCA. *Sustainability*, 18(1), 325. <https://doi.org/10.3390/su18010325>



© 2026 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution-Non Commercial-No Derivatives (CC BY NC ND) 4.0 International License. (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).