ENVIRONMENTAL COMMITMENT AND ADOPTION OF GREEN PRACTICES AMONG STAR-RATED HOTELS ALONG THE KENYAN COAST

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DECLARATION

Student Declaration

I hereby, declare that this thesis is my original work and to the best of my knowledge has not been presented for the award of a degree in this or any other university.

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APPROVAL

The undersigned certify that they have read and hereby recommend for acceptance by Murang'a University of Technology a thesis entitled "**Environmental Commitment and Adoption of Green Practices among Star-rated Hotels along the Kenyan Coast**".

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DEDICATION

This thesis is dedicated to Almighty God, who has granted me time, chance, strength and wisdom to bring it to fruition. The work is also dedicated to my parents, Mr Charles Irungu and Mrs Lucy Wangui, for nurturing my education since my early childhood. Blessings galore!

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ABSTRACT

The hospitality and tourism industry is one of the key economic sectors expected to take a leadership role in transforming the emerging green economy. The economic pillar of Vision 2030 in Kenya acknowledges the crucial function of natural resources. Direct promotion of these resources relate to environmental protection and efficient utilization of resources. Kenya stands to secure more incredible benefits from hospitality and tourism by 2030. Policy and strategy framework must be established to move away from intensive material and carbon approaches to delivering visitor experiences by implanting green practices. The stakeholders' role in adopting green practices has seldom been investigated. In Kenyan hotels going green is a recent phenomenon that hotel sector management longs to adopt. Limited research studies have been undertaken to establish how environmental commitment influences the adoption of green practices in the Kenyan hotel sector. This study primarily sought to establish the effect of environmental commitment on adoption of green practices in star-rated hotels along the Kenyan Coast. To achieve this, the study sought to 1) establish current and potential green practices adopted in star-rated hotels along the Kenyan Coast, 2) determine the role of stakeholder engagement in the adoption of green practices, 3) establish the current and potential benefits of green practices adopted by star rated hotels, and 4) determine the moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices among star-rated hotels along the Kenyan Coast. Using an embedded mixed methods design, quantitative and qualitative approaches were embraced. Sample hotels for the study were identified using stratified random selection. Stratification of management tiers for the choice of experts, general managers and heads of the section was applied. Data was obtained using semi-structured questionnaires, interview schedules and an observation checklist. Analysis of quantitative data included descriptive statistics and multiple linear regression, one sample t-test and moderated multiple regression using SPSS 21. Qualitative data were analysed thematically using NVivo 12. The results revealed a growing recognition and adoption of green practices among star-rated hotels along the Kenyan Coast ($p=\leq 0.000 \leq 0.05$). The regression model with stakeholders' engagement and perceived benefits was statistically significant [$F(2,103) = 151.736$, $p<.000$]. The regression model explained 74.7% of the variation in the adoption of sustainable practices by the star-rated hotels in this study ($R=.864$, $R^2=.747$). The effect of the stakeholders' engagement ($\beta = .760$) and perceived benefits ($\beta = .242$) on the adoption of green practices was positive and statistically significant ($p<.001$ and $p<.05$, respectively). The regression model with the moderator (environmental leadership) explained 80.9% of the variation in the adoption of green practices by the hotels in this study ($R=.900$, $R^2=.809$), demonstrating that the moderating variable accounted for an additional 6.3% of the variation, which was statistically significant ($p<.001$). Therefore, this study makes several recommendations. The results of this study suggest that stakeholder engagement, stakeholder perceived benefits, and the moderating effect of environmental leadership have a statistically significant effect on the adoption of sustainable practices among star-rated hotels in Coastal Kenya. In addition, this study has contributed to developing a statistical model with predictor variables that star-rated hotels and capacity-building institutions can use to predict the adoption of green practices. This study recommends that star-rated hotels, in partnership with hotel associations and related capacity-building institutions, develop a standard framework for monitoring and evaluating stakeholders' environmental expectations in adopting green practices by providing minimum performance indicators.

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OPERATIONAL DEFINITION OF TERMS

Environmental Leadership: Ability to engage internally and collaborate with external stakeholders.

Environmental Sustainability: Green practices.

Greening is the process of recognizing sustainability principles by providing eco-friendly products or services that supersede demand for non-green products and services.

Green Facilities are establishments that recognise sustainability principles by providing eco-friendly products or services that supersede demand for non-green products and services.

Green Practices: Technical, environmentally friendly/sustainable practices carried out within the hotels to protect any negative impacts on the external environment, such as energy management, water conservation, bio-diversity, green building design, waste management, and emissions control, among others.

Heads of Section: Line managers

Stakeholders: Persons, groups/ organizations which can affect or be affected by hotel decisions, such as guests, employees, government, and hotel associations, among others.

Stakeholder Environmental Commitment: Steps and actions developed and implemented by the organizations or individuals that cause pollution.

Stakeholder Engagement: Participative actions/involvement undertaken in order to solve environmental problems.

Star Rating: Guidelines indicating the accommodation's character and the service a hotel sets out to offer. A five-star rating scheme is administered in Kenya.

ACRONYMS AND ABBREVIATIONS

AH&LA	**:**	American Hotels and Lodges Association
ANOVA	**:**	Analysis of Variance
CC	**:**	Consumer Council
CEF	**:**	Conserve Energy Future
DAERA	**:**	Department of Agriculture, Environment, and Rural Affairs
EMS	**:**	Energy Management Systems
EPA	**:**	Environmental Protection Agency
GDP	**:**	Gross Domestic Product
GHG	**:**	Greenhouse Gas
GoK	**:**	Government of Kenya
IUCN	**:**	International Union for the Conservation of Nature
KNBS	**:**	Kenya National Bureau of Statistics
LED	**:**	Light Emitting Diode
MLR	**:**	Multiple Linear Regression
MMR	**:**	Moderated Multiple Regression
MoT	**:**	Ministry of Tourism
NACOSTI	**:**	National Commission for Science, Technology and Innovation
NDC	**:**	Nationally Determined Contribution
NEMA	**:**	National Environment Management Authority
NEPA	**:**	National Environmental Policy Act
NGO	**:**	Non-Governmental Organization
NIEA	**:**	Northern Ireland Environment Agency
P-P	**:**	Probability – Probability Plot
TRA	**:**	Tourism Regulatory Authority

UN	**:**	United Nations
UNCED	**:**	United Nations Conference on Environmental Development
UNEP	**:**	United Nations Environment Program
UNFCCC	**:**	United Nations Framework Convention on Climate Change
UNWTO	**:**	United Nations World Tourism Organization
VIF	**:**	Variance Inflation Factor
W.T.O	**:**	World Tourism Organization
WTM	**:**	World Travel Markets
WTTC	**:**	World Travel and Tourism Council
WWF	**:**	World Wildlife Fund

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The hospitality and tourism industry is one of the largest and fastest-growing sectors globally (United Nations World Tourism Organization [UNWTO], 2020). Worldwide, the industry is known for its enormous contribution to the Gross Domestic Product (GDP) and for creating numerous job opportunities. Global statistics indicate that the hospitality and tourism industry enjoyed exponential growth in international arrivals.

International tourist arrivals globally increased by 6% to 1.4 billion in 2018. This was way above the 3.7% growth rate projected in the global economy. The relative percentage distribution was as follows; Asia, Pacific and Europe (6%), Africa (7%), and the Middle East (10%) led growth in 2018. Africa recorded an increase of 7% in 2018 (Sub-Saharan at 6% and North Africa at 10%), translating to an estimated 67 million arrivals (UNWTO, 2018).

There was an upward trajectory in international arrivals from 2.135 billion in 2017 to 2.28 billion in 2019, representing a growth rate of about 6.8%. Similarly, international tourism expenditures rose from $1.39 trillion in 2017 to $ 1.55 trillion in 2019 (UNWTO, 2020). In 2019, the industry contributed $ 8.9 trillion to the world's GDP. This represented a 10.3% increase from the previous year (World Travel and Tourism Council (WTTC, 2020).

The hospitality and tourism industry is a major contributor to the global economy. The contributions are directly, indirectly, or through the induced form, estimated at over $ 7 trillion. In addition, the industry generated $ 1.6 trillion in exports in 2017, elevating

hospitality and tourism to the world's third-largest export category and the leading export sector in many developing states (WTTC, 2020).

The hospitality and tourism industry also contribute to furthering participatory growth, which increases opportunities for all, producing an estimated one in ten jobs globally. In 2017, tourism accounted for 10% of global employment directly and indirectly (UNWTO, 2018). The hospitality and tourism industry also recorded high employment levels in the world in 2019, estimated at 330 million jobs (WTTC, 2020).

The hospitality and tourism industry accounts for $168 billion, representing 7.1% of Africa's economy's gross domestic product (GDP) (UNWTO, 2020; WTTC, 2020). On the same breadth, the earnings from the hospitality and tourism industry increased by 3.9% from KSh 157.8 billion in 2018 to KSh 163.6 billion in 2019. In addition, international arrivals recorded a 0.4% growth rate of up to 2,035.4 thousand in 2019 (Alushula, 2020; Global Tourism Forum, 2020; Kenya National Bureau of Statistics [KNBS], 2020).

Locally, tourism notably offers diverse opportunities for economic activity for women and youth in the workforce (UNWTO, 2018). Thus, the industry today is a powerful driver of economic growth. Subsequently, this requires all stakeholders to manage the sector sustainably, translating the growth into tangible benefits for all local communities and creating job opportunities and entrepreneurial ventures (UNWTO 2018).

UNWTO in 2010 forecasted the 1.4 billion global mark of international tourist arrivals for 2020. More robust economic growth, low-cost air travel, technological

advancement, new business strategies, and greater facilitation of travel documents worldwide have accelerated growth in recent years (UNWTO, 2018).

The hospitality and tourism industry has contributed significantly to economic growth for the last decade. There were optimistic forecasts for exponential growth in the future before the onset of the Covid-19 pandemic (Khatter et al., 2021). It is worth noting that considerable global growth in the hotel sector has been attained while disregarding its environmental impact (Rahman & Reynolds, 2016). This poses a challenge to environmental sustainability in the hospitality and tourism industry.

While hotels strive to achieve guest comfort and memorable experiences and pursue green marketing, this may be perceived as depriving luxury, cost-reducing and inconvenient (Baker et al., 2014). Hotels and environmental sustainability are frequently not compatible, but efforts should be made to ensure co-existence due to the impact of increased use of energy, water and waste generation (Dos Santos et al., 2017). The hospitality and tourism industry stands a chance to showcase sustainability through stakeholder engagement in adopting green practices as part of daily operations.

The hospitality and tourism industry consumes enormous resources and significantly affects the ecosystem. American hotels spent 8.2 billion dollars on energy, produced 7 million tons of waste, consumed 64 trillion gallons of water, and generated 23 million tons of carbon dioxide (American Hotel and Lodging Association [AH&LA], 2013). Hotels' carbon dioxide and waste lead to global climate change (United Nations Environment Programme [UNEP], 2016).

Many countries worldwide have realized the hotel sector's remarkable adverse effects on the environment (Ernst and Young, 2008). In Europe, for instance, hotels consume 39 terawatt-hours of energy per year, and their customers use up to 440 litres of water per guest per night (Bohdanowicz, 2006). The average water use in African hotels is 466 litres per guest per night (Gössling, 2002). Energy use and waste management are also critical concerns (UNWTO, 2018).

The natural environment of hospitality and tourism facilities is one of the crucial assets for the hotel sector. Hotels are part of the more significant energy and water resource consumers and generate vast quantities of waste (Bohdanowicz, 2006). The hotel sector has been earmarked as the most harmful to the environment in the hospitality industry (Rahman et al., 2012).

Tourism and hospitality continue to be highly affected by global climate change considering their dependence on weather, climate and natural environment that constitute the centre of hospitality and tourism activities. Despite the adverse effects of climate change on tourism, most tourism activities significantly contribute to Greenhouse Gas (GHG) emissions. Tourism contributes almost 10% of aggregate global carbon dioxide and is anticipated to rise steadily by 2035 (Simpson et al., 2008). Therefore, this contribution of GHG emissions cannot be underestimated; there is a dire need for a long-term reduction strategy in the industry (Njoroge, 2016). Therefore, hotels need to design environmentally responsible models and implant a comprehensive view of sustainability. Traditional marketing mix variables will continue to drive consumer spending, such as price and brand quality, but going green will increasingly reflect in the decision-making process (Deloitte Consulting Firm, 2010). The demand to adopt green practices in hotels has become a worldwide concern

(Graci & Dodds, 2008). Going green helps reduce adverse environmental impacts and cut operation costs, maximizing efficiency (Alexander & Kuehnel, 2011).

The going-green movement started in the United States of America back in 1969. It was initiated by forming the National Environmental Policy Act (NEPA), which marked the evolution of the sustainability concept. This legislation fostered a conducive environment that promoted harmonious co-existence between man and nature. Therefore, it was possible to productively exploit natural resources while considering the needs of the present and future generations (Ethical Corporation, 2015). This definition resembles the one developed by the United Nations (UN) in 1987. The sustainability concept was first echoed in 1987 by the United Nations-sponsored Brundtland Commission's unveiling of "Our Common Future" (World Commission on Environment and Development, 1987).

The United Nations Brundtland Commission defined sustainable development as "meeting the needs of the present without compromising the ability of future generations to meet their own needs". Based on these definitions, sustainability refers to 'improving the quality of life for current and future generations that should be achieved while protecting the environment and the capability of natural systems.' In the same vein, the International Union for the Conservation of Nature (IUCN), the UNEP, and the World Wildlife Fund for Nature (WWF) (1991) stated that sustainability was "improving the quality of human life while living within the carrying capacity of supporting ecosystems." (1987).

The hospitality and tourism industry has been pursuing greener methods of operation since the 1990s due to the positive degree to which it impacts customer service. The United Nations Conference on Environmental Development (UNCED) in 1992 at the

Rio Earth Summit recognized Travel and Tourism as one of the global economy's main sectors, which could positively affect implementing sustainability initiatives (Njoroge, 2014).

Sustainability entails economic, social, and environmental dimensions that tend to be treated independently to suit various interests. For example, economic sustainability involves attaining stable levels of the labour market and economic growth. Social sustainability refers to recognizing society's needs, while environmental sustainability implies the responsible use of natural resources and protecting the environment. Lack of balance among these dimensions has resulted in climate change, rising sea levels, unpredictable weather patterns, loss of biodiversity, depletion of natural resources, global warming, and increased GHG emissions (Schaltegger et al., 2017).

Environmental sustainability has subsequently assumed more relevance in global environmental issues, including the growing recognition of stakeholder engagement in environmental management by the hospitality and tourism industry. The hospitality and tourism industry emissions are predicted to grow steadily, notwithstanding the effects of Covid-19. This considerable growth raises concerns as to how mitigation measures can be put in place by the industry to cut down its adverse environmental impacts by reducing energy and water consumption and implementing reusing and recycling programs. In the same vein, investors should consider environmental impact assessment when developing properties in new tourism destinations to meet the demands of industry growth (UNWTO, 2018).

A green hospitality facility recognises sustainability principles by providing eco-friendly products or services that supersede demand for non-green products and services. In addition, a major step of a sustainable hospitality facility is to reduce the

environmental impact of harmful waste materials and emissions generated from its operations and adopt social responsibility (Boğan et al., 2020; Irungu & Njoroge, 2022).

Green practices adopted by hotels include energy management, water conservation, biodiversity, noise pollution reduction, green building design, organic food, green procurement, waste management, carbon footprint reduction, environmental education, environmental partnership and indoor air quality management (Hsieh, 2012; Ogbeide, 2012).

Management support and leadership are crucial factors for increasing organization-wide awareness and comprehension of environmental issues (Sullivan, 2008). Kasim (2007) pointed government's regulatory forces as another determinant for hotels to implement environmental management. Some research findings suggest that environmental actions are influenced by relationships with stakeholders such as suppliers, guests, and non-governmental organizations (NGOs). However, hotel managers' interpretation of stakeholder engagement concerning environmental issues varies from locality to another (Banerjee et al., 2003).

The beginning of the hospitality and tourism industry's climate change response and the need for assessing its contribution to climate change was recognized through the Davos Declaration (Njoroge, 2016), A list of policy recommendations was provided, namely contemporary construction and cultural heritage; however, they were not specific to hotel operations. Additional guidelines by Simpson et al. (2008) provided more relevant and practical tools for the industry, such as cutting down and offsetting emissions and minimizing waste by focusing on efficiency (Fig. 1.1).

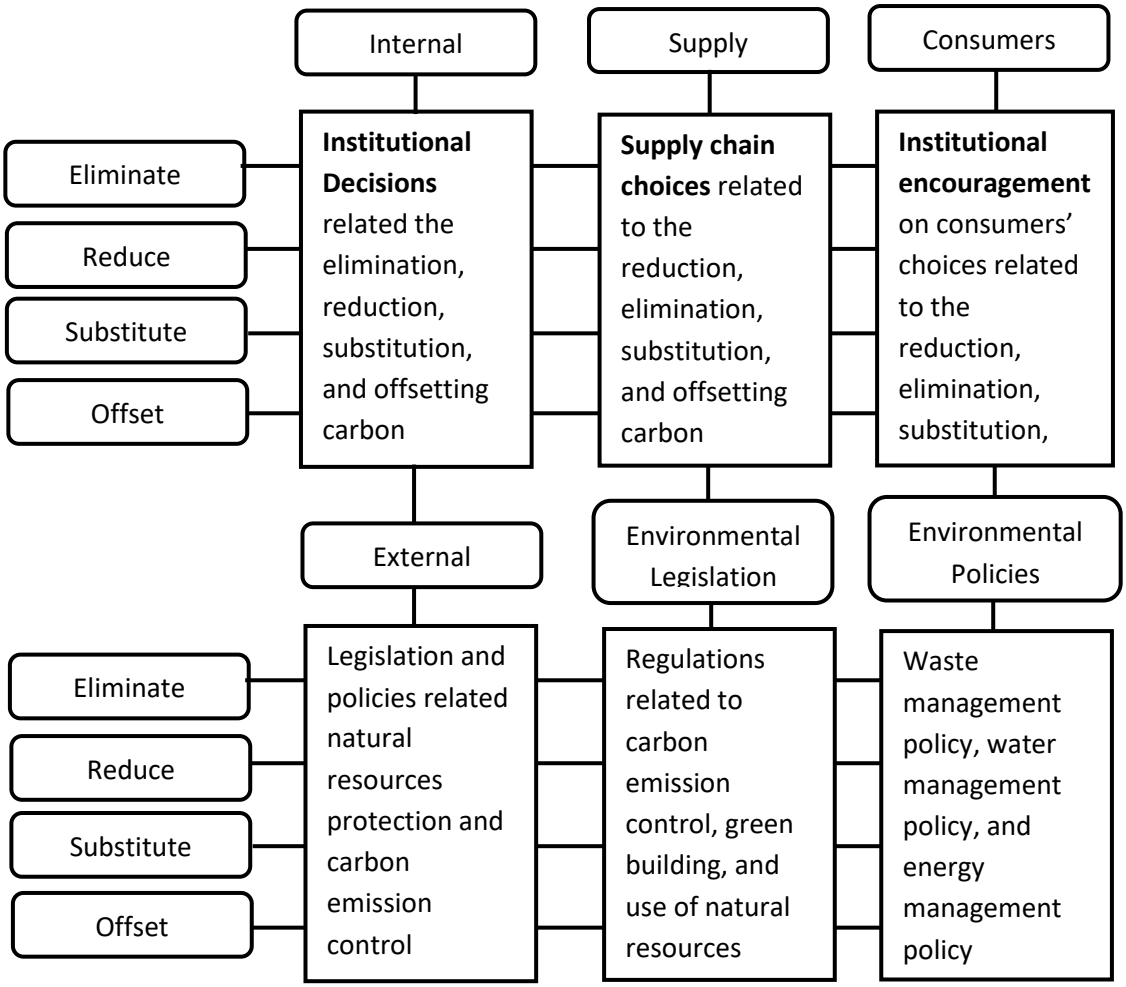

Figure 1. 1: Business and Institutions' Guidelines for Carbon Neutrality

Source: Adapted from Simpson et al. (2008)

These instruments provide practical guidelines for the hospitality and tourism industry in achieving resource efficiency and responding to climate change. The crucial steps include eliminating GHG emissions by avoiding certain activities that significantly alter hospitality products or the quality of service delivery. The second step involves the reduction of GHG emissions by concentrating on energy efficiency in various operations. The third step entails substituting traditional and non-friendly products and practices with environmentally friendly ones to reduce GHG emissions and lower carbon footprints. The final stage deals with offsetting the remaining emissions by businesses and institutions to achieve total carbon neutrality (Simpson et al., 2008).

This model, however, does not consider external factors such as environmental policy and legislation. Therefore, an integrated strategy is required to mitigate the disturbing ecological balance in the hospitality and tourism industry. The process entails going green creatively to enhance the sustainable use and management of ecosystems through the engagement of stakeholders within the industry. The urgent calls to control the effects of climate change require the sector to address the 2015 Paris Agreement (United Nations Framework Convention on Climate Change [UNFCCC], 2015).

Following the need to accelerate climate action globally, Glasgow Declaration has been used as a catalyst. The declaration aims at urgently securing commitment and strong actions to halve emissions and reach net zero emissions before 2050. This will be achieved through a shared commitment to uniting all stakeholders to transform tourism and deliver effective climate action (UNEP, 2021).

The Glasgow summit offered a crucial chance to enhance the governments' ambition on climate finance, adaptation, and ‘loss and damage’ (Nationally Determined Contributions). This also provided a chance to finalize the rules guiding Paris Agreement implementation. There is, therefore, a more urgent need to manage and build resilience arising from accelerating climate change impacts, especially for developing countries and most vulnerable regions, through alignment of climate action across tourism stakeholders (UNEP, 2021).

In order to adequately address climate change impacts on environmental sustainability, a national climate change action plan (2018 - 2022) was operationalized to implement the response strategy. The focus is to reduce vulnerability to climate change and create a resilient, low-carbon, sustainable pathway, subsequently

contributing to a clean and secure environment (GoK, 2015). Kenya is among the countries that submitted a National adaptation plan (2015 – 2030) to the UNFCCC. This has further been enhanced through the review of the Nationally Determined Contributions of 2015 in 2020 as recommended by Glasgow Declaration (UNEP, 2021); however, the enforcement of climate change law in the country has faced numerous challenges.

There are policy and action challenges that are empirically rooted in the disconnect between environmental awareness and participation (Mckercher & Prideaux, 2011). This scenario is notable for the case of Mombasa, where the hotel sector has done little and key stakeholders to assess climate change impacts. This status is attributed to moderate awareness of climate change among hoteliers along the Kenyan coast hence the limited mitigation actions (Njoroge, 2016). This is further connected to the climate change Act 2016 enforcement challenges.

Adopting green practices in the hospitality and tourism industry is further complicated by various interests of stakeholders. Therefore, creating a sustainable path entails a conflict among stakeholders and serious ethical choices hence the need for stakeholder engagement and environmental leadership. In addition, the criterion requires a delicate balancing act due to conflicting standards, a hotel's operating policies, and the financial goals of directors and shareholders (L.-F. Chen, 2019).

The adoption of green practices in the hospitality and tourism industry calls for a concerted effort by all stakeholders to control adverse ecological impacts (Jauhari, 2014). Therefore, hotel management's understanding of ecological issues is a major driver for adopting green practices (Scholz, 2018). There is a need to meet and account for the expectations of all stakeholders, not only shareholders (Fernando & Lawrence,

2014). Key stakeholders in the industry influence formulation and adoption of green policies and practices (Fernandez-Feijoo et al., 2014).

Stakeholders who influence management decisions have a critical role in promoting green practices (Epstein & Buhovac, 2014). Stakeholder theory posits that environmentally sensitive managers are more likely to implement socially and ecologically sustainable practices to satisfy key stakeholders' demands and attain managerial targets of achieving a competitive advantage. Hotel managers have realized that collaborating with main stakeholders leads to enhanced environmental strategies, satisfying stakeholders and achieving higher environmental performance. However, limited studies have addressed stakeholder involvement in formulating environmental design and adopting green practices in the hospitality and tourism industry (Epstein & Buhovac, 2014).

The hospitality and tourism industry plays a crucial role in Kenya's economy. Therefore, it was necessary to determine the effect of stakeholders' environmental commitment to adopting eco-friendly practices in star-rated hotels along the Kenyan Coast to fill the knowledge gap in decision-making and reveal the sector's commitment to emission reduction in line with the Paris Agreement.

1.2 Statement of the Problem

The hospitality and tourism industry is one of the key economic sectors central to leadership in transforming the emerging green economy. The economic pillar of Vision 2030 in Kenya acknowledges the crucial function of natural resource-based sectors. Protection of these directly relates to the environment and its resources. The social pillar further indicates that for the country to achieve projected economic growth of 10 per cent per year, there will be a substantial strain on the environment

through the depletion of resources, generation of pollutants and industrial effluent (GoK, 2010).

The Kenyan hotel sector is a case in point that depicts challenges in implementing environmental policies. Most star-rated hotels are located in beautiful natural sceneries, historical sites, and regions with a delicate ecological balance, such as the coastal beaches. The hotels consume enormous resources and are involved in diverse practices to enhance the overall guest experience while endangering the environment (Ndurya & Marete, 2010). As a result, the hotel sector generates GHG and pollutants, accelerating climate change and accounting for almost 10% of global GHG emissions (UNWTO, 2018).

In general, the considerable growth of the hotel sector and hospitality industry has also raised critical environmental concerns through the enormous consumption of water and energy, generation of huge volumes of waste in terms of food and non-recyclable effluent (Hu et al., 2013). Various conference declarations and green associations have strived to enhance the industry's environmental sustainability performance by providing environmental guidelines and recommendations (UNWTO, 2022).

Davos Declaration aimed at persuading key stakeholders globally to prioritize green actions (UNFCCC, 2015). While investigating the adoption of the Davos Declaration by hospitality facilities, Njoroge (2016) found out that hoteliers acknowledge climate change and its effects on hospitality operations and the environment. However, little has been achieved due to policy and action challenges. This research study was limited to environmental awareness and attitudes towards green practices among the management staff of general hospitality facilities in Mombasa. Many studies have

focused on green behaviours, management attitudes towards green practices and the role of a green supply chain (Robertson, 2018).

According to the Glasgow Declaration, Committing to and planning for a green recovery offers a unique opportunity to transform the sector in line with the objectives of the Paris Agreement. A paradigm shift from carbon and excessive material ways of delivering visitor experiences with an emphasis on community stakeholders and ecosystem wellbeing will make tourism a leader in transforming the emerging green economy (UNEP, 2021). However, the role of stakeholders' environmental commitment and leadership in adopting green strategies and actions still has a shortage in research studies. Therefore, the question arises as to how stakeholders' environmental commitment can be addressed adequately in formulating and adopting greening strategies.

Strong environmental commitment among hotel managers has been posited to catalyse corporate greening and pro-environmental behaviour among key stakeholders (Kitsis & Chen, 2021; Raineri & Paillé, 2016; Tariq et al., 2020). However, a research study in the hospitality and tourism industry found that lack of environmental commitment and management support among hotel managers was a critical barrier to adopting green practices (Ojo & Fauzi, 2020; Yusof & Jamaludin, 2014).

According to a recent global poll, more than eighty percent of chief executive officers in twenty-five organizations from one hundred countries acknowledge that environmental commitment is key to the success of their businesses (Accenture Strategy, 2016). Research studies have also indicated that stakeholders including communities, customers and governments have focused more on how organizations respond to the loss of biodiversity, green practices, and climate change (Babiak &

Trendafilova, 2011). Additionally, studies have further revealed a gradual upward trajectory in green consumerism globally (Sustainable Travel Report, 2018). Hotels are, therefore, paying attention to green-conscious stakeholders through the adoption of green policies and practices (Leonidou et al., 2013; Shanti, 2016). Nonetheless, majority of the hotels have been struggling to promote green policies and strategies effectively to their stakeholders (Peiró-Signes et al., 2014).

While Kenya stands to leap great benefits from hospitality and tourism by 2030, notwithstanding the effects of the Covid-19 pandemic, a policy and strategy framework needs to be developed for the creative greening of hospitality operations through the engagement of stakeholders. Therefore, this study sought to bridge the disconnect and knowledge gap between stakeholders' environmental commitment and the adoption of green practices among star-rated hotels along the Kenyan Coast.

1.3 Objectives of Study

1.3.1 General Objective

To establish the effect of environmental commitment on the adoption of green practices among star-rated hotels along the Kenyan Coast.

1.3.2 Specific Objectives

i. To establish current and potential green practices adopted by star-rated hotels along the Kenyan Coast.
ii. To determine the role of stakeholders' engagement in the adoption of green practices among star-rated hotels along the Kenyan Coast.
iii. To establish the effect of stakeholders' perceived benefits and costs on the adoption of green practices by star-rated hotels along the Kenyan Coast.

iv. To determine the moderating effect of environmental leadership on the relationship between environmental commitment and the adoption of green practices among star-rated hotels along the Kenyan Coast.

1.4 Hypotheses

i. H_{01}: There is no significant relationship between stakeholders' engagement and adoption of green practices among star-rated hotels along the Kenyan Coast.

ii. H_{02}: There is no significant relationship between stakeholders' perceived benefits and the adoption of green practices by star-rated hotels along the Kenyan Coast.

iii. H_{03}: There is no significant moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices among star-rated hotels along the Kenyan Coast.

1.5 Justification of the Study

The hospitality and tourism industry's carbon emissions grew by 60% from 2005 to 2016, with transport-related carbon dioxide causing 5% emissions globally in 2016. Moreover, the sectors' carbon emissions may rise 25% or more by 2030, compared to 2016, if decarbonisation is not accelerated (UNEP, 2021). Therefore, the hospitality and tourism industry must become more aggressive in monitoring, reporting, and reducing resource use and emissions.

A balanced proposition to greening is required, based on strategies for disconnecting tourism and hospitality growth from ecological degradation and excessive resource use. This process involves meticulous use of resources, focus on biodiversity conservation, climate change mitigation and adaptation, and promoting environmental

awareness among key stakeholders on issues related to hospitality and tourism (UNWTO, 2018).

The breadth to which stakeholder demands are blended into hotels' decision-making may be determined by stakeholders' perceptions, value systems, and environmental awareness regarding green practices adoption (Irungu, 2015). Environmental leaders who involve and consider the ecological concerns of key stakeholders in their decision-making are more likely to achieve advanced green programs and long-term success than managers concentrating on short-term benefits (Epstein & Buhovac, 2014).

The long-term repercussions of critical green action challenges have not yet sunk into the minds of hotel stakeholders (H. Chen et al., 2019). The leadership of most hotel organizations may not be aware of the implications of their decision-making approaches on the local and global ecosystem (Chan et al., 2018). Professionals have embraced stakeholder engagement in hospitality and tourism decision-making; however, it has not been realized substantially (Khatter et al., 2019). Hotels, therefore, must inevitably embrace environmental commitment by formulating green strategies to operate sensitively to the environmental demands and concerns of different stakeholders.

1.6 Scope of the Study

This study was limited to star-rated hotels along Coastal Kenya; therefore, the generalization of findings was confined to the study area since it may not apply to other geographical landscapes.

1.7 Limitations

The use of cross-sectional survey tools allows only the establishment of the current status of the subjects under the study and the relationships among study variables at the time of research. Future changes in the study variables' relationships were not captured in this study. Therefore, the study recommended further research areas to be conducted in future.

The quantitative data for this study was collected using a self-administered questionnaire and thus prone to the threat of self-reporting. However, consistency was observed throughout the data collection exercise by using similar questionnaires and training research assistants on the distribution mode to overcome the limitation. The questionnaires were also refined to ensure clarity of research constructs.

The study was conducted in star-rated hotels along Coastal Kenya. Therefore, it is impossible to generalise this study's findings to star-rated hotels in other geographical regions. Therefore, the study recommended using different performance indicators to adopt green practices based on the uniqueness of the geographical area. The research study recommended further research in other geographical regions.

Noteworthy is that data collection took place in late 2019 and early 2020 during the onset of the Covid 19 pandemic, which may have altered hotel operations, stakeholder concerns and policies. The study, therefore, recommended using longitudinal surveys, which can be conducted at different points.

1.8 Assumptions

The study assumed that the information collected was not biased on corporate social responsibilities and that respondents had adequate knowledge and exposure to green

practices to understand the questionnaire. Observations on various green techniques were made and recorded. It was also assumed that the respondents were willing to participate in the survey and provided correct information to achieve the objectives of this study.

1.9 Contribution of the Study

The findings of this study could benefit hospitality and tourism management by greening the star-rated hotels and capacity building through developing more green facilities, enhancing scanty definitions of green practices and strengthening the existing capacity-building institutions in this sector. Furthermore, the research study informs stakeholders of the need for short courses in environmental management by providing evidence for policy formulation, review and implementation of green practices in the hospitality and tourism industry.

Additionally, the study can help academia in the greening of hospitality and tourism curricula as well as the development of green training learning resources. The study also supports Kenya's effort to mitigate climate change by reducing greenhouse gas emissions and promoting sustainability by providing minimum performance indicators to star-rated hotels based on their geographical set up.

This study enhances the prediction of green practices adoption by developing a statistical model and a tool kit which will help star-rated hotels monitor the adoption rate of green practices and their contribution to the reduction of greenhouse gas emissions. The study also addresses climate action and collaboration with stakeholders such as the relevant ministries, environmental agents, customers, local community and suppliers.

The results could also enable hotel managers to focus on the interests and needs of primary stakeholders hence developing a participatory strategy to engage them actively, tapping their views and ideas of designing potential green programs and improving existing policies and practices.

Furthermore, the study enhanced scanty definitions, knowledge, understanding and awareness of green practices adoption through the successful publishing of one book chapter (Defining Greening of Hospitality) in "Encyclopaedia of Tourism Management and Marketing" by Professor Dimitrios Buhalis (*Appendix 12*). The study has also contributed to the development of a tool kit which will be used by star-rated hotels and capacity-building institutions for monitoring and evaluating stakeholders' environmental expectations in the adoption of green practices based on minimum performance indicators established.

In addition, this study has contributed to developing a statistical model with predictor variables. The significance of predictors was determined hence a possibility of application based on its relevance/impact (coefficients). Star-rated hotels and capacity-building institutions can use the model to predict the adoption rate of green practices. This study also contributed to determining the unique moderating effect of environmental leadership on the relationship between environmental commitment and the adoption of green practices.

Finally, this research study helps bridge the knowledge gap in decision-making between environmental commitment and adoption of green practices through statistical prediction of contribution from stakeholders' engagement and perceived benefits. This is in tandem with the Glasgow declaration's commitment of uniting stakeholders to transform tourism and support effective climate action.

1.10 Organization of the Thesis

This thesis comprises of five chapters which address pertinent areas. Chapter one (Introduction) consists of the background to the study, problem statement and justification, objectives of the study and hypotheses. Significance of the study, scope of the study, limitations and assumptions are also highlighted in this chapter. Literature review in Chapter two covers the study objectives, theoretical models, key concepts, the conceptual framework and empirical review anchoring the study. Finally, the chapter highlights the research gaps identified from the literature reviewed.

Chapter three describes the methodology applied by this research to achieve the study objectives. It focuses on research philosophy, research design, study area, target population, sampling techniques and sample size, research instruments, data collection procedures, methods of data analysis, logistical and ethical considerations. Chapter four features results of the study and subsequent discussion of the findings based on the study objectives. Summary, conclusion and recommendations of the study are addressed in Chapter five. List of references and appendices have also been included.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature review addresses green practices in the hospitality and tourism industry, including the potential and current green practices, the role of stakeholders' engagement in promoting green practices, the perceived benefits and costs of adopting green practices and the moderating effect of environmental leadership on the relationship between environmental commitment and the adoption of green practices, Theoretical models applied in the study, the conceptual framework and summary of research gaps identified are also highlighted.

2.2 Green Practices

2.2.1 Energy Consumption in Hotels

Hotels' consumption of diverse forms of energy releases toxic emissions into the environment, causing air pollution (Bohdanowicz, 2008). The hotel sector's lethal emissions resulting from energy consumption are estimated at 180 kilograms per square meter of room floor area (Bohdanowicz, 2008; Bohdanowicz & Martinac, 2003; Kirk, 1995). These emissions result in atmospheric pollution and subsequent rise in global temperatures (Beaudoin & Gosselin, 2016).

Insufficient and costly electric power in Kenya causes negative impacts on product quality in the regional and global markets. In addition, the electricity services' quantity and quality have not improved and are frequently occasioned by unexpected power surges. Therefore, hotels should look for sustainable energy sources such as solar power, wind and biomass (Theuri, 2010).

Kenya has made tremendous improvements in waste recycling to provide sustainable fuel sources for cooking and water heating. Moreover, with the increasing bans on fuel wood, organic briquettes are made from various waste materials. Such innovations will help to promote the forest cover, which has been damaged by logging and charcoal burning (Theuri, 2010).

Chege and Irungu (2017) reported that Kenyan businesses and industries are always been among the first to complain about the ever-rising cost of energy. However, according to the study, many surveys indicate that the potential for energy conservation and efficiency remains untapped, mainly in Kenya's industrial and commercial sectors, with achievable savings estimated at between 15 to 20 percent of the current usage.

2.2.2 Water Consumption in Hotels

The amount of water a hotel consumes depends on accommodation capacity, facility standards and the services provided (Bohdanowicz, 2008). Worldwide, there is a lot of pressure on fresh water sources due to high demands on rivers, dams, reservoirs, and lakes for household and industrial consumption (Kasim, 2007). Kirk (1995) reported that hotels use cold water extensively in the kitchen, laundry, drinking, circulation for air conditioning, and hot water for bathing.

Water consumption by hotel guests per night will depend on many factors. The average water consumption pattern ranges between 170 and 360 litres of water per guest per night (Bohdanowicz, 2008). In a luxurious hotel setting, the hotel room would require 1,500 litres of water per day (Alexander, 2008). This consumption pattern was expected to rise to 2000 litres per day for each guest room by 2020.

Lack of monitoring or control of water consumption will likely lead to water rationing, as currently evidenced. Water contamination is also a critical factor. Increased water consumption by hotels implies a large volume of waste water will be released into the environment causing pollution of freshwater sources and degrading the environment (Kasim, 2007; Kirk, 1995).

Some beach hotels only have water treatment plants for strategic reasons, but they are not functional. The National Environment Management Authority (NEMA) indicated that only a few beach hotels along the Kenyan Coast recycle their waste water before discharge. NEMA, therefore, provided directives to the beach hotels to ensure they treat their waste. Water pollution at the beach has severe effects, including wiping out fish species and other marine life (Ondiege & Nzioka, 2011).

2.2.3 Waste Generation, Reduction, Re-use and Recycling in Hotels

Food preparation and service generate large amounts of waste (Kirk, 1995). Various types of waste materials are produced by a hotel, including food, metals, paper, plastics and glass (Alexander, 2008). Food waste is estimated at 50 per cent of the total waste (Alexander, 2008). Other forms of waste by composition include 25.3% paper, 11.7% cardboard, 6.7% plastics, 5.6% glass and 4.5% metal waste (Kasim, 2007).

The hotel sector has not effectively adopted strategies to cut food waste (AH&LA, 2013). This issue is a significant challenge that requires urgent attention, according to (Green Assessment Survey, 2008). The relatively large amounts of food waste produced by hotels have not decreased despite the increasing recognition of green

practices (Okazaki et al., 2008). Over-production, losses during cooking and excessive packaging in the kitchen result in food waste accumulation (Bohdanowicz, 2008).

Reduction of food waste involves continuous observation, which is time-consuming. Reducing other types of solid waste is relatively not as demanding. However, valuable time and effort by food preparation staff are needed because the efficacy of food waste reduction involves continuous monitoring of food stock, food portions and the percentage of waste per meal (Okazaki et al., 2008).

Hotel waste generation is relatively higher than household waste. This problem affects destinations in most developing countries, such as the Kenyan Coast, where there are insufficient land areas to dispose of solid waste. Therefore, waste management and minimization are critical environmental issues for the hotels on island destinations such as Mombasa. In addition, empirical evidence from Maasai Mara reveals that a steady increase in tourist numbers results in the increased generation of solid and liquid waste (Ondiege & Nzioka, 2011).

Resource efficiency and waste reduction are closely intertwined (Boissonneault, 2014; Conserve Energy Future [CEF]., 2018). Complete elimination of waste is inevitable; therefore, waste reduction is more prioritised than the management of waste (National Academies of Sciences et al., 2019). Deliberate, planned production and consumption in food production, housekeeping, and laundry services are required to reduce solid and liquid waste generated.

Waste reduction or liquid waste minimization implies waste decrease at the source hence cutting down on final treatable and disposable quantity using just enough resources (CEF, 2018). It also entails reducing the hazardous waste quantity and toxic

pollutants before recycling (National Academies of Sciences et al., 2019). Conscious application of innovation and alternative procedures through better product design, process management and technology modifications are key to reducing waste or minimization.

Other strategies include improvement of work practices, staff training, inventory control, enhanced maintenance schedules through environmental education, and practices that do not generate excess waste (Liu et al., 2015). Redesigning products and changing societal patterns in consumption and production will also contribute to less generation of waste (Regents, 2018). Limiting waste volumes generated by individuals and corporate bodies brings down the dependency rate on natural resources and decreases the adverse effects of waste on the environment (CEF, 2018).

Therefore, adopting external and internal waste reduction strategies is recommended. External waste sources include commodities procured from other organizations, while internal or operational waste implies waste produced from organizational processes. Systems for internal and external waste reduction or elimination entail guidelines for suppliers to reduce excessive packaging of products and deliver them in reusable packaging (Koetke, 2014; Boissonneault, (2014); Northern Ireland Environment Agency [NIEA], 2018).

Practices which reduce wastage from hotel operations apply to materials, water and energy. Reducing waste from materials entails conserving resources, controlling food portions and accurate materials issuance (CEF, 2018), proper inventory and efficient monitoring of resources to avoid over-purchasing and subsequent spoilage during storage (NIEA, 2018). In addition, using proper storage and handling of raw materials to prevent and reduce food loss, using glass water bottles, and presenting food with

conventional tableware are sound approaches. Other strategies include replacing old and inefficient equipment that is likely to cause wastage during operations (Mwangi, 2018).

Reusable waste can always be sorted out from disposable waste and kept aside to minimize waste. Greening office practices by reducing the workplace's environmental impact may include purchasing eco-friendly products for office use, using electronic documents, and using files to replace printed media (CEF 2018; NIEA, 2018). In addition, sending customer invoices and staff payslips using email, among other services, instead of posting printed materials.

2.2.4 Resource Efficiency and Elimination

Resource efficiency implies generating zero waste when deriving the greatest value from such resources as water, energy and materials (CEF, 2018; NIEA, 2018). These are mitigation strategies before materials, substances, or products go to waste (Martinuzzi & Montevecchi, 2014). Resources are used to avoid wasteful use through excessive consumption. While resource efficiency implies maximum utilization, underutilization of resources should be avoided (WRAP, 2018).

Maximization and utilization of resources through efficient consumption is necessary to mitigate the depletion of natural resources (Environmental Protection Agency [EPA], 2017). The presence of waste indicates overconsumption and inefficient use of materials and resources. According to the Department of Agriculture, Environment, and Rural Affairs (DAERA, 2018) and Boissonneault (2014), cutting down the earth’s demand for new supplies and raw materials through resource efficiency is the most preferred option for the environment. It also eliminates the natural environment's stressful absorption and processing of waste. This theory, therefore, applies similar

principles, just like the carbon neutrality model illustrated in chapter one. The approach helps to achieve waste management, cut down on carbon emissions, and enhance the efficient utilization of natural resources.

Resource efficiency is synonymous to direct waste reduction in a hotel. Poldrugovac et al. (2016) posit that efficiency is critical for management control and performance improvement through change. During the consumption process of resources, waste is generated (such as orange peels extracted when producing juice), wasting resources through excessive use, such as over-irrigation of grass lawns during hot weather or leaving the lights on in unoccupied rooms. In addition, underutilization can manifest through spoilage or improper utilization of natural resources like rainwater harvesting (Consumer Council [CC], 2018).

Management control is one of the key factors in ensuring efficiency (Poldrugovac et al., 2016). Waste reduction and efficiently cutting down on material consumption are directly related, implying that hotels' efficient use of resources results in less waste production. This process can be achieved by designing a regular monitoring program to reduce the wastage of established resources consumed in various hotel sections such as production, service, guestrooms, bars, and offices before it occurs (NIEA, 2018).

On the other hand, lower energy requirement to perform similar functions and tasks implies energy efficiency. It can also be described as the proper utilization of alternative green energy sources such as solar power, wind power, hydroelectric power, geothermal and biomass energy from plant sources. As a result, energy efficiency can greatly increase profitability through financial savings and, more importantly, reduce greenhouse gas emissions (Huang et al., 2015; NIEA, 2018).

Switching off electrical appliances and lights when not in use is a different approach to achieving energy efficiency. Furthermore, hotels can also adopt environment-saving alternatives, including insulation of water heating systems and boilers. Additional techniques involve turning off electrical appliances when not in use, automation of lighting control systems, using the appropriate size of cooking ware and defrosting freezers (NIEA, 2018).

Heating, ventilation, air-conditioning and hot water systems constitute most hotels' energy uses (NIEA, 2018). However, energy consumption leads to high utility costs and releases greenhouse emissions, which lead to environmental degradation. Cutting down this effect involves the installation of fluorescent lamps, energy-efficient lighting and Light Emitting Diode (LED) lighting when necessary (NIEA, 2018). Some recommended energy-saving measures include implementing automatic lighting controls, using the optimum room and water temperatures, and promoting energy efficiency awareness within the organization (Thomsen, 2013).

In tandem with the above measures, it is equally important to set a neutral zone to ensure that cooling and heating systems are not operating simultaneously. Furthermore, control of guest room temperatures, reviews for automatically timed heating settings and reducing the number of bulbs will contribute to energy savings. Low-temperature cleaning appliances reduce hot water requirements and adjust dishwashers and washing machines to economy settings, contributing significantly to energy efficiency (CEF 2018; NIEA 2018).

Hotel operations consume water extensively in the irrigation of landscaped grounds, bathing and swimming, food preparation, flushing lavatories, washing and cleaning (NIEA, 2018). Cutting down the consumption of both hot and cold water will

considerably result in financial savings for water and energy bills. Additional water consumption and waste management approaches include installing automatic water flow control or stop devices. The choice of hotel laundry and kitchen equipment with minimal water consumption rates, equipment maintenance and cleaning of drains, use of full loads for washing machine operations at minimum temperatures and use of back washing systems for swimming pool filtration help to cut down water consumption (Koetke, 2014).

Reduction of water use can also be achieved by using low-flow water devices in wash hand basins, installation of low water volume toilets and sinks, and soliciting showers among hotel guests compared to bath tubs that consume large water volumes. Other approaches involve choosing a low water volume irrigation design for landscaped grounds, not using the excess water for irrigation of lawns, regular maintenance, and replacing old washing equipment with modern eco-rated models. There is a significant relationship between water usage reductions that culminates in reducing wastewater released into the environment. Running towel and linen reuse programs, avoiding changing bed linen daily, or installing ozone-friendly washing machines will help achieve this strategy (Boissonneault, 2014; National Academies of Sciences et al., 2019).

In addition to the latter approaches, there are other efficient approaches to water efficiency and waste water minimization, such as maintaining a regular inspection and response program for potential leakages, including leakages from toilet flappers, water faucets and toilets. Conversion of indoor sauna and Jacuzzi to a spa bath, use of low water volume toilets/urinals or switching to cistern diverters and planting heat-tolerant native plants in garden areas (CC, 2018; NIEA, 2018).

2.3 Stakeholder Engagement and Green Practices

Stakeholders are individuals and organizations that influence management commitment (Freeman, 2010). Customers, suppliers, employees, local communities, governments, and shareholders constitute stakeholders (Berman et al., 1999). Stakeholders are a major determining factor in commitment to green practices (Dolores López-Gamero et al., 2011).

The extent to which hotel managers identify and comprehend key stakeholders' concerns and engage them in decision-making will determine the magnitude of green practices implemented. In adopting pronounced green programs, the demands and concerns of stakeholders were more important than other considerations (Park & Kim, 2014).

Environmental concerns of stakeholders may change managers' perceptions of environmental protection. The enhanced level of awareness stimulates them to start a partnership with major stakeholder groups resulting in the formulation of green strategies and participation in green program adoption (Dolores López-Gamero et al., 2011). Stakeholder engagement influences management's environmental commitment to the adoption of green practices (Rodriguez-Melo & Mansouri, 2011).

Adopting green practices in the hospitality and tourism industry is an intricate task owing to the various interests of stakeholders. These interests require a delicate balancing act due to conflicting standards, a hotel's operating policies, and the financial goals of directors and shareholders (L.-F. Chen, 2019). Therefore, environmental education and training are essential to communicate to all stakeholders the challenges of environmental degradation, hence the need for hotels to participate and minimize the impact.

Hotel managers may not recognize that energy costs saved by investing in new and efficient energy appliances or systems will repay the initial installation cost and contribute to enhanced performance of green practices in the operations. Therefore, it is crucial to create environmental awareness among hotel managers and proprietors regarding the mutual benefits of green practices adoption (Upadhyay et al., 2016).

Stakeholder engagement refers to cooperative relationships with stakeholders to assist an organization find solutions to environmental problems (Dolores López-Gamero et al., 2011). The strategies may involve collaborations on improving green programs by formulating policies and subsequent green programs (O'Riordan & Fairbrass, 2014).

The magnitude to which an organization complies with stakeholders' anticipations and inculcates management of stakeholder relationships into their strategy influences an organization's capacity to respond to environmental crises responsibly (Black & Härtel, 2004). This results in adopting a dynamic greening strategy and subsequent improvement of green programs. Cooperating with stakeholders is one of the most critical factors in achieving competitive advantage through active green practices (Rodriguez-Melo & Mansouri, 2011). Therefore, to solve environmental problems, hotel managers should promote collaborative partnerships with key stakeholders.

According to stakeholder theory, organizations should target prudent performance, follow socially acceptable attributes, satisfy the needs of major stakeholders and achieve their goals (Dief & Font, 2012). This implies that promoting partnerships with crucial stakeholders helps meet their demands and achieve long-term success (Lo, 2013). In addition, stakeholder pressure is essential in enhancing managers' awareness and increasing the adoption of green programs (Park & Kim, 2014).

Hotel associations as primary stakeholders play a signature role in environmental education and training to create awareness among its members on the crucial role of green practices hence bridging the expertise gap in this area. In addition, the critical role of hotel associations is to advance the interests of their members and the hospitality industry. This can be an effective catalyst for creating green certification standards to guide the sector in policy formulation, implementation, monitoring, auditing and reporting green performance (Dolnicar et al., 2019).

As an umbrella body, a hotel association is well-versed in daily hotel operations and can assist member hotels in developing a more focused green certification program. Hotel associations are vital stakeholders in hospitality and should play a crucial role in advocating for credible green certification programs. Green certification helps promote green consumerism by providing information that contributes to stakeholders' sound judgment and decision-making concerning the availability and choice of green hotels. Furthermore, the associations should develop an environmentally sustainable sector by driving the adoption process for green practices, appropriate technology, design practices and operations of green hotels (González-Rodríguez et al., 2019).

2.3.1 Stakeholder Forums on Green Strategies Formulation and Adoption

It is impossible to meaningfully engage stakeholders in the hospitality and tourism industry over green practices adoption as it is extensively consumed by the debate over climate change and environmental sustainability. However, hotels can lay a foundation on the information from stakeholders through environmental education and training. Furthermore, hotel managers must educate guests on a hospitality facility’s greening initiatives and how they can contribute to them during their stay (Dolnicar et al., 2019).

This will help to merge commercial and social perspectives that can be attained through formulating a formal greening policy.

Engaging key stakeholders in green practices adoption is challenging as the concept of greening is intricate and different stakeholders have diverse opinions, interests and expectations. Some stakeholders may be perceived as more important, denying equal and balanced contributions by all stakeholders in the decision-making process. A need, therefore, arises to systematically engage all stakeholders through hotel managers. A hotel manager stands a better chance to reconcile stakeholders' diverse interests and opinions, effectively driving the coordination process of formulation and adoption of green strategies.

Hotel managers can, in turn, collaborate with hotel associations and other regulatory bodies. Thus, the associations are well-positioned to take an environmental leadership role in educating their members about the hospitality and tourism industry. This training will mainly focus on the essence of green practices and managing a meaningful stakeholder engagement process. On the contrary, this has not yet been embraced by hotel managers. The associations should therefore take a vantage position to formulate hotel sector–centred certification programs that enhance green practices awareness and adoption (González-Rodríguez et al., 2019; Irungu et al., 2022)

Training and aligning all stakeholders requires an environmental policy to develop a vision and solicit stakeholders' support. This process will inform the organization's expectations to stakeholders concerning green strategy formulation. The training will also reveal the hotels' commitment towards greening and developing a green culture. Correctly implemented and supported green policies and procedures will enhance

stakeholders' decisions in supporting and promoting green strategy formulation and adoption (L.-F. Chen, 2019).

Hotel associations can actively collaborate with hotels to innovatively develop environmental education, training and certification programs on green strategy formulation and adoption. Guests are vital stakeholders since greening affects most hotel operations, forming the root of service delivery in the hospitality industry. Therefore, engaging customers meaningfully and other key stakeholders in environmental education and training is essential to understand their attitudes, interests, and perspectives about green strategy formulation. This process is illustrated in Figure 2.1.

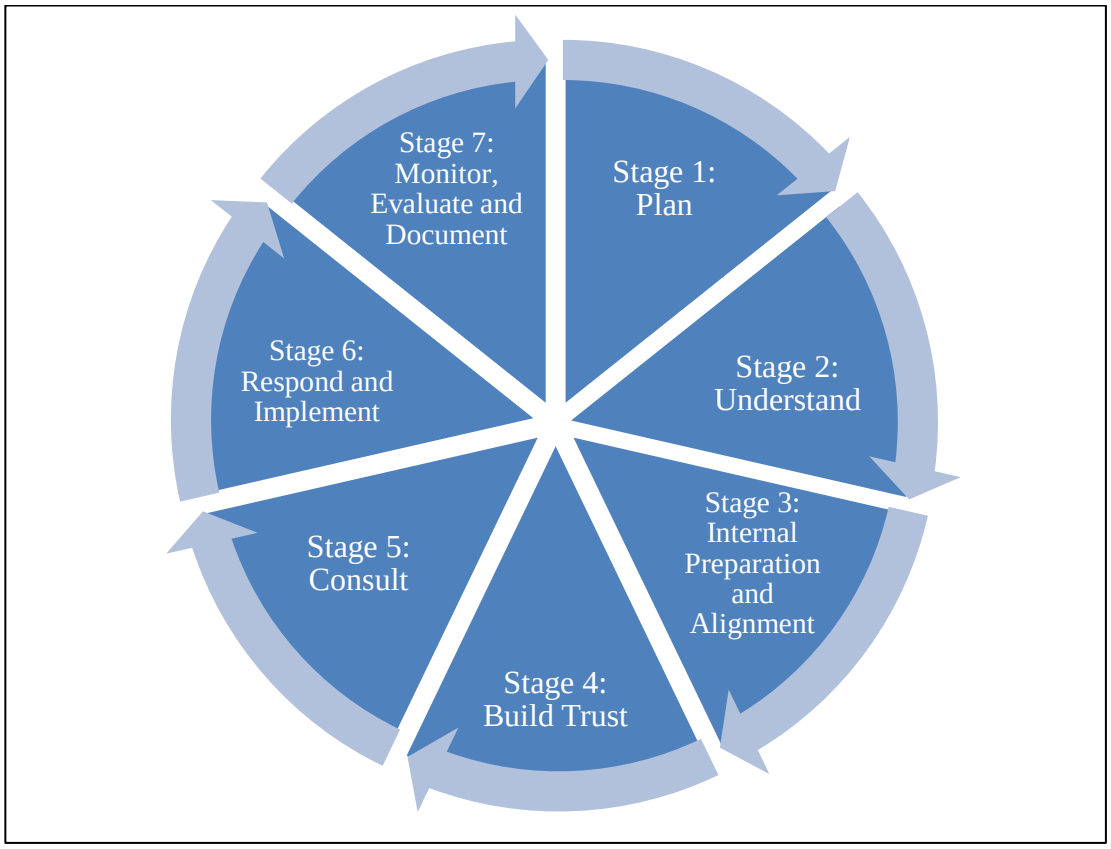

Figure 2. 1: Stages in a Meaningful Stakeholder Engagement Process

Source: Adapted from Sequeira and Warner (2007)

This model describes a two-way process of communication between the organization’s management and the stakeholders, where opinions, views and suggestions flow in both directions. The organization should therefore be willing to make changes resulting from the engagement process. This is an interactive process that enhances meaningful stakeholder engagement through mutual relationships. The planning stage entails identifying fundamental objectives that an organization would like to achieve, addressing the concerns, and the stakeholders you intend to prioritize in the engagement process.

Understanding stakeholders, their wants and needs is the second stage, which involves typologies to categorize them based on interest, influence, and the relevance of issues at hand to both the organization and stakeholders. After this initial assessment of stakeholders, their thinking, decision-making, what motivates them, and their expectations should be identified, but more importantly, a final decision has to be made on whether to engage or not. The expectations should be meticulously managed as they influence future outcomes.

Internal preparedness and alignment with stakeholders is a stage that recognizes optimum success levels may be achieved when an organisation's and stakeholders' objectives are well aligned. Organizations should therefore invest time and resources to identify commonalities between them and their stakeholders. In addition, leadership support and internal capacity are key at this stage to achieve meaningful engagement.

Besides planning and internal alignment, other concerns must be managed as they engender a lack of trust. Building trust as a fourth stage serves to remedy inequity of stakeholder relationships, differential power of groups and individuals, cultural and diversity barriers in the engagement process. Building trust leads to openness in

sharing information, hence two-way communication and enhanced ability to find commonalities.

Stage five involves representative, responsive, context-focused, complete, realistic, and material or relevant consultation. Many consultation techniques are available, including personal interviews, workshops, focus groups, meetings, surveys, participatory tools, and stakeholder panels. These techniques help to scope out and, after that, prioritize issues from organization and stakeholder perspectives.

Once a decision is made on the most appropriate course of action, the organization can respond and implement or formulate proposals for action according to stakeholders' reactions to each submission. In addition, organizational response to stakeholders' demands has an implication on business reputation and performance and should therefore be done carefully. Finally, the organization should monitor, evaluate and document the outputs and outcomes gained in business operations after the implementation stage.

2.3.2 Challenges of Stakeholder Engagement

The lack of engaging stakeholders strategically and timely during the formulation and implementation of green programs is relatively high and characterized by several challenges. Such challenges include a lack of uniform and harmonized criteria to engage stakeholders and various stakeholders' conflicts of interest, leading to different priorities. This problem calls for a unified framework to guide the engagement process and encourage collaboration (National Round Table on the Environment and the Economy, 2021). Other problems include lack of organizational capacity to communicate, negotiate and manage stakeholder relations while motivating them to be more collaborative and avoid competition.

These challenges require training forums that hotel associations can organize to equip members with relevant skills and knowledge on meaningful stakeholder engagement strategies (Rhodes et al., 2014). Multi-stakeholder engagement also encounters challenges in identifying and prioritizing possible stakeholders due to a lack of organizational focus. Organizations also have a habit of engaging other stakeholders later, hence interfering with the decision-making process. This process may lead to stakeholder fatigue and a decline in meaningful engagement hence the need to value stakeholder participation and contribution. Organizations may also experience politicizing and a lack of equal priorities in projects involving public-private initiatives leading to unnecessary criticism (Kuenkel, 2013).

2.4 Environmental Leadership

Environmental leadership is essential in developing and implementing environmental strategies and subsequent green practices. Hotels require leaders who are inclined to ecological sustainability as a pivot of their approach to providing environmental leadership. Ecologically accountable leaders are individuals who make greening a critical principle, convey its essence, and increase green program awareness by encouraging both internal and external stakeholders to regard green practices (Epstein & Buhovac, 2014).

Hotels have acknowledged the crucial role of leadership in dealing with environmental issues (Epstein & Buhovac, 2014). Leaders formulate their environmental strategies or objectives and assign resources, coordinating all green programs towards these goals. Therefore, management is a crucial and binding force in developing green programs for an organization. In addition, environmental leadership is essential in

developing, implementing and communicating green program strategies with stakeholders.

Accountable environmental leadership enhances employees' perceived benefits, influencing green programs' performance (Voegtlin et al., 2012). Accountable leaders have the skill and ability to develop, nurture and sustain trustful relationships with internal and external stakeholders (Maak, 2007). It also involves coordinating responsible action to achieve the organization's vision.

Environmental leaders, therefore, make good resolutions by listening to and balancing the opinions of internal and external stakeholders of the organization (Voegtlin et al., 2012). These leaders should subsequently consider the repercussion of their initiatives on the external stakeholders and incorporate their interests. The leaders should advocate for environmental sustainability principles within the daily operations, include them as core values and communicate their essence to internal stakeholders (Voegtlin et al., 2012; Epstein & Buhovac, 2014).

Sustainability leaders result from social integration into a group. This group champions the natural balance and interdependence between man and the environment. This scenario is usually evident in the internal stakeholder's routine operation schedules (Visser & Courtice, 2011). Becoming sustainable involves profound ethical choices to resolve stakeholders' conflicts features. This approach requires a new sustainability leadership practice grounded on systematic thinking and action (Shriberg, 2012).

According to Cambridge Programme for Sustainability Leadership, emotional intelligence, interdisciplinary knowledge, meticulous attitude, conducive

organizational climate, and participatory style that builds trust and willingness to innovate are key features of environmental leadership. In addition, novel leadership styles and business models are vital in developing ongoing competitiveness and coping with the overwhelming challenges of adverse environmental effects (Nelson, 2011).

Environmental leadership is usually associated with different managerial practices, including implementing an environmental management system, promoting green strategies, management of stakeholders, and performance reporting (Kashmanian et al., 2010). Analysis of green practices portrays a simplistic view of environmental leaders who drive a green vision of different sustainability initiatives. This environmental commitment is associated with managers' global views, abilities, values, and behavioural constructs (Brown, 2011).

Environmental leadership has been attributed to adopting diverse green practices and hotel managers' responsibilities in promoting change. First, the successful adoption of green practices is highly attributed to the environmental commitment of hotel managers (Kearins & Collins, 2012). Secondly, empirical data on environmental leadership and corporate greening motivations point to the essence of the search for social legitimacy and responding to stakeholder demands. This results in designing relevant structures and strategies that prompt the adoption of green practices.

Thirdly, environmental leadership is closely intertwined with different benefits accrued to implementing green strategies, as discussed in section 2.4. Research studies have also established values underlying environmental leadership and green processes (Crossman, 2011). However, it is noteworthy that environmental leadership and its practical application have not been adequately addressed at institutional and

association levels. Furthermore, stakeholder integration framework, promotion of green initiatives, implementation of environmental management systems, standardized auditing and performance reporting criteria requires proper consideration.

Leadership amidst environmental crises dramatically reveals the need for transformation while pointing out some of the challenges involved. Research studies show that new leadership styles are indispensable to continuously support green initiatives and biodiversity. Leadership efforts to unearth what should be restructured and how to refashion and remodel institutions are complex. The dilemma confounding many leaders involves sorting out the complex issues to progress or maintain the status quo. Invoking change concerning environmental and system operation perceptions through leadership is necessary to progress (Case et al., 2015; Henderson, 2015; Strachan, et al., 2015). This also helps to demystify the conflicting standards among directors, key stakeholders and shareholders with regard to green policy formulation, strategy implementation and hotel operations.

Few leaders have actively embraced and adopted greening initiatives in their organizations. This scenario probably points to a disconnect in leadership vision, intelligence, or values necessary to inculcate a greening culture. Numerous research studies have examined different leadership styles; however, few have explored eco-sensitive leadership perspectives. Interrogating eco-sensitive leaders' perceptions and lived experiences may identify new trends in environmental leadership (Hansen, 2012).

Unlike traditional leadership styles, which were task-oriented, environmentally specific transformational leadership focuses on long-term greening effects in

organizations. The purpose is to integrate individual and organizational environmental values and promote self-driven green behaviours (Robertson, 2018). Therefore, this leadership style is more likely to inculcate a green culture among the employees.

Environmentally specific transformational leadership can be organized into four primary behavioural constructs that motivate green-oriented employees (Robertson & Barling, 2013; Robertson, 2018). First, environmentally specific transformational leaders who portray environmental values and behaviour act as role models by demonstrating green ideas, environmental commitment and soliciting employees' participation in greening projects (Robertson & Barling, 2013). Employees will most likely follow and emulate environmental leaders who exhibit this behaviour.

Secondly, environmentally specific transformational leaders will inspire and motivate employees to pursue collective interests such as walking or riding to the workplace (Graves & Sarkis, 2018). They also encourage employees to internalize and psychologically embrace greening aspects by enhancing environmental knowledge and participating in greening programs. This process transcends to a build-up of greening culture and green-oriented actions within an organization (Robertson & Barling, 2013; Robertson, 2018).

Transformational leaders who are full of intellectual stimulation also encourage staff to be creative and innovative about greening issues and resolve any challenges affecting the adoption of green practices (Schmitt et al., 2016). In addition, environmental leadership actions in this context can promote protection and innovation for employees' green initiatives (Robertson & Carleton, 2018). Finally, this leadership style can establish relationships that lead to the transmission of green values to employees and other key stakeholders (Graves et al., 2013; Kura, 2016).

According to research studies, transformational leadership's intellectually inspired attributes significantly influence workforce efficiency, performance and talent management. In addition, an organization's green human resource management contributes to hotel acquisition, development, motivation, and sustainable green employee job behaviours (Dumont et al., 2017; Jia et al., 2018).

Transformational leadership in organizations contributes significantly to formulating green human resource management policies and subsequent green strategies that support implementing the practices. To enhance green organizational performance, this form of transformational leadership considers individual employees' needs which play a crucial role in supporting green human resource management practices. These practices include selection, recruitment, performance appraisal, compensation, incentive systems, training and development. The latter motivates and inspires employees to engage in actions that enhance innovations and green performance (Dumont et al., 2017; Jia et al., 2018).

Voluntary approaches (designed by the facility that causes pollution) implemented by hotels help them attain environmental objectives and improve internal operations to minimize negative effects on the external environment (Sullivan, 2008). The hospitality and tourism industry commonly uses voluntary tools, including codes of conduct, best environmental practices, environmental performance indicators and eco-labels (Ayuso, 2006). There are two critical roles played by voluntary approaches in the environmental policy area, including their use as changeover instruments for the hotel to prepare for new or stricter regulations and encourage environmental leadership and innovation (Sullivan, 2008).

2.5 Perceived Benefits of Green Practices

Providing societal solutions is the ethical reason for applying green practices for some businesses (Tzschentke et al., 2008). Still, for many, the gains related to green practices connect operation's competitive advantages to society's objectives (Miller & Twining-Ward, 2005). Moreover, previous studies showed that managers' perceived benefits have an impact on environmental commitment (Abdou et al., 2020; S. Chen et al., 2018; Pamfilie et al., 2018) as well as the adoption of green practices (Alonso-Almeida et al., 2017; Chandran & Bhattacharya, 2019; Kularatne et al., 2019).

According to research studies, perceived benefits are a key motivator for hotel greening. Financial and non-financial benefits are categories of perceived benefits resulting from adopting green practices in hotel operations (S. Chen et al., 2018). Cost-savings were the most cited financial benefit (Abdou et al., 2020; Alonso-Almeida et al., 2017; Chandran & Bhattacharya, 2019; Kularatne et al., 2019). This financial benefit has been attributed to improved energy and water efficiency, cost reduction in water consumption, minimised materials use, and subsequent waste disposal (Butler, 2008; Chandran and Bhattacharya, 2019).

Additionally, other factors have triggered the adoption of green practices, including non-financial benefits such as improved employee satisfaction, positive public image, safe and conducive working environment which are discussed in subsequent paragraphs (Abdou et al., 2020; Chen et al., 2018; Pereira et al., 2021). Park et al. (2014) asserted that perceived advantages of environmental management showed a relatively strong relationship with hotels' involvement in green practices.

2.5.1 Cost Reduction

Financial savings is the most obvious benefit of green practices. However, the increasing costs for water, energy and waste disposal have led to a search for alternatives by many hotels. These include mitigation measures mainly focusing on long-term business sustainability (Willard & Hitchcock, 2015). They include recycling, installing water-saving devices, using energy-saving light bulbs, and using solar-powered water heating systems.

2.5.2 Public Relations

Green practices help organizations to create a positive public image with stakeholders. These benefits lead to the development of competitive advantage and additional business opportunities in the global market (Willard & Hitchcock, 2015). Public relations benefits usually have the highest ratings, followed by improved stakeholder relations (Kirk, 1995).

2.5.3 Employee Satisfaction

Green practices in a working environment make employees feel more rewarded and valued, developing a positive self-image (Baum et al., 2007). Productivity and service quality is also likely to improve (Butler, 2008). To achieve this, an organization requires a complete change of culture, beliefs, thinking patterns and behaviour. Sustainable human resource management practices result in employee attraction and retention, a serious challenge in the hospitality industry(Willard & Hitchcock, 2015).

2.5.4 Consumer Demand

Environmental and social concerns have continued to influence consumer behaviour and choice; however, green consumerism remains a grey area in the hospitality industry (Dodds & Joppe, 2005; Miller & Twining-Ward, 2005). The complexity of recognizing green hotels compels guests to make their choice based on personal

judgement. It is, therefore, crucial to provide sufficient information to increase societal awareness about green hospitality facilities. This status will raise the demand for green tourism products (Miller & Twining-Ward, 2005).

2.5.5 Barriers to Green Practices Adoption

Some possible barriers may affect adopting green practices and environmental best practices. They include division of responsibilities in large organizations, insufficient technical competencies, and high investment costs, especially for capital-intensive programs (Styles et al., 2015). Additional challenges to the adoption of green initiatives may also entail inadequate environmental policies, lack of environmental awareness programmes and capacity to enforce relevant environmental laws.

2.6 Theoretical Frameworks and Models

Different theories and models are used to explain green practices. This study uses stakeholder, corporate sustainability, and environmental leadership theories. Stakeholder theory was a proposition by Freeman in 1983. It is a theory of managing organizations and ethical standards in business geared towards moral values in organizational management based on stakeholder interests and obligations. Stakeholder theory explains why hotels should use socially appealing performance by following socially acceptable values, satisfying key stakeholders' demands, and attaining business goals (Dief & Font, 2012). This theory implies that an organization that has developed strong relationships with its key stakeholders by attending to their needs will achieve better organizational performance and lasting success (Lo, 2013).

The Corporate Sustainability Model provides an apparent reference to motivations and subsequent results (Figure 2.2). The model reveals how organizations can incorporate greening into decision-making. This model indicates the vital role of managers in

simultaneously improving environmental and financial sustainability. Management influences organizational greening through leadership and environmental commitment to green program goals. Environmentally accountable leaders may encourage staff to work on their greening performance, producing constructive feedback from stakeholders and resulting in better environmental and financial performance. This model discusses both drivers and outcomes of green practices adoption.

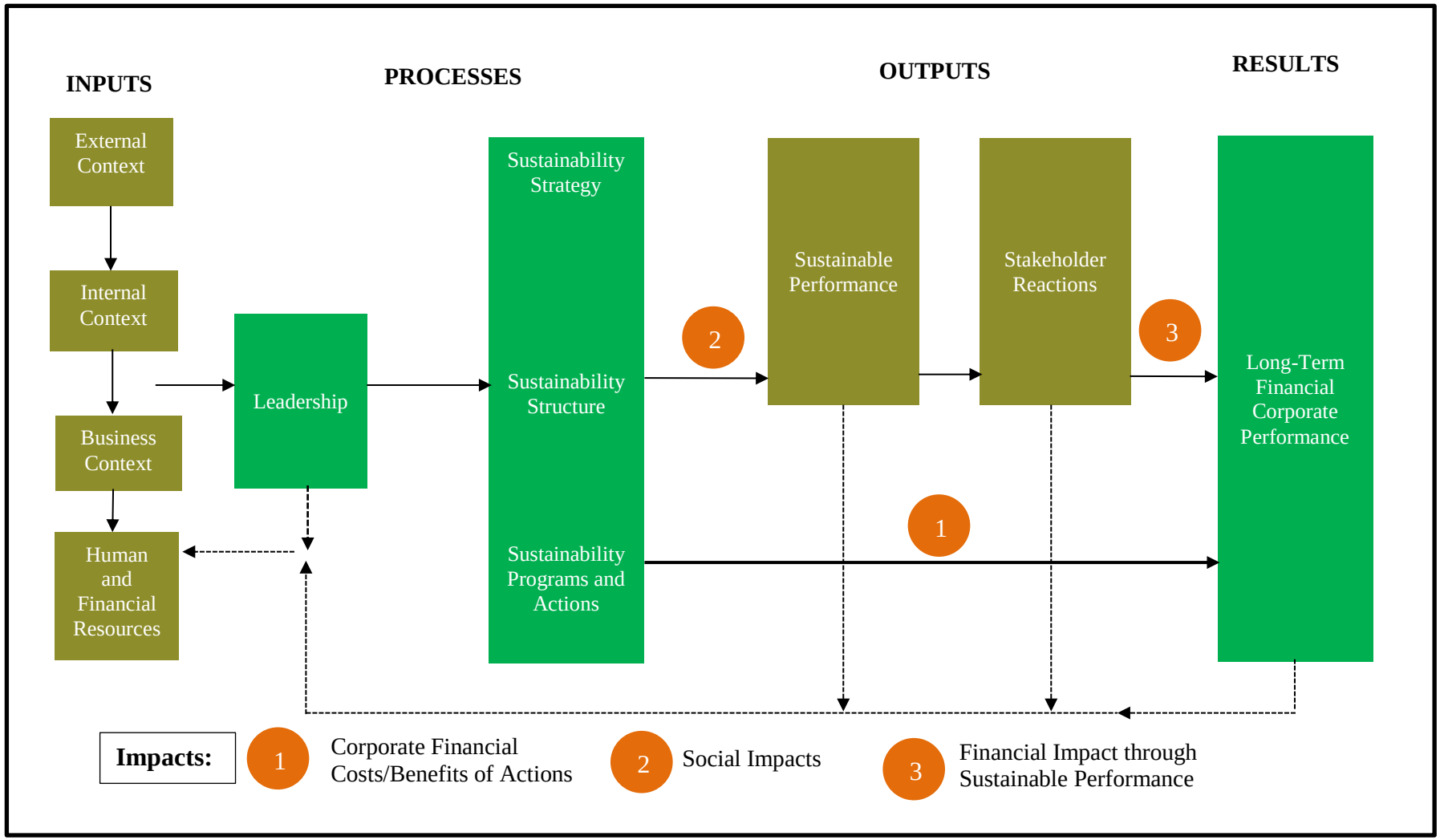

Figure 2. 2. Corporate sustainability model (Epstein & Buhovac, 2014)

2.7 Conceptual Framework

The model is premised on the dimensions of environmental commitment adapted and modified from previous research studies. The framework is also anchored on different theoretical models, such as the corporate sustainability model and stakeholders theory among others (Figure 2.1).

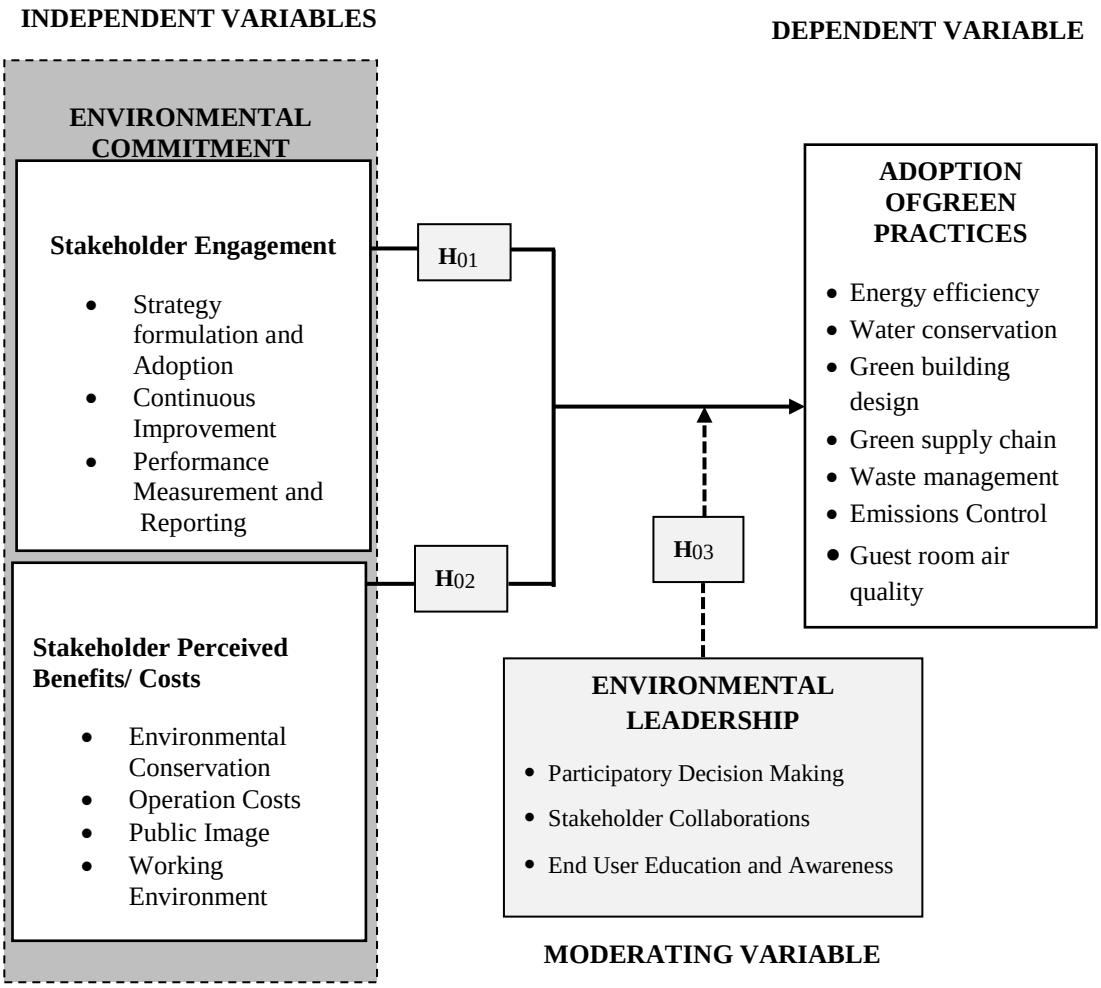

Figure 2. 3. Conceptual Framework on the Relationship between Environmental Commitment and the Adoption of Green Practices.

Source: Adapted and modified from Corporate Sustainability Model (Epstein & Buhovac, 2014), Meaningful Stakeholder Engagement Process (Sequeira & Warner, 2007), Environmental Commitment Practices (Henriques & Sadorsky, 1999), and Hsieh (2012) Adoption of Green Practices by Hotels.

Environmental commitment is an "emotional attachment, identification, and involvement with environmental behaviours" (Cantor et al., 2012). Other research studies defined environmental commitment as crucial organizational attributes that support green activities related to protecting the natural environment (Chang, 2011). In addition, environmental commitment implies the efforts, activities and resources an organisation utilises to nurture environmentally friendly practices (Henriques & Sadorsky, 1999).

Collier and Esteban (2007) posited that corporate social responsibility and stakeholders' environmental commitment entails a shared reinforcing relationship between personal values and organizational identity. Organizational identity refers to "members' understandings and claims about what is central and unique in the long run about the organization" (Clark et al., 2010). This means that organizational members have shared meanings about what motivates their actions and participation in the organization.

Stakeholders such as Customers, suppliers, employees, local communities, governments, and shareholders are a major determining factor of commitment to green practices (Dolores López-Gamero et al., 2011). Stakeholder engagement entails cooperative relationships with stakeholders to help organizations solve environmental problems (Dolores López-Gamero et al., 2011). The strategies may involve collaborations and partnerships to improve green programs by providing new ideas, formulating green policies, defining performance indicators and subsequent adoption of green practices (O'Riordan & Fairbrass, 2014).

The translation of companies' socially responsible practices into individual environmental commitment depends on people's sense of self and belief systems.

When stakeholders perceive that their ethics align with those of the organization, they get greater meaning from their responsibilities and look for opportunities for value expression, which, in turn, shapes the adoption of green practices within an organization (Collier & Esteban, 2007).

According to the stakeholders' theory, the fundamental focus of an organization is on developing relationships and deriving value for its stakeholders (Freeman & Dmytriyev, 2017). Hotel managers' perception of stakeholder demands and expectations imply higher levels of environmental commitment and support in formulating green policies and strategies (Dubey et al., 2017; Tumpa et al., 2019). Environmental commitment was highly influenced by perceived financial benefits among internal stakeholders (Cheyne & Barnett, 2001). Resource efficiency was also indicated as one of the benefits of active participation in green practices through adopting green policies, strategies and programs (S. Chen et al., 2018).

On the other hand, environmental leadership is key in developing and implementing green practices, communicating and reporting to internal and external stakeholders (Epstein & Buhovac, 2014). In addition, leadership has been postulated to improve stakeholders' perceived importance of greening activities within an organization (Voegtlin et al., 2012).

Adopting green practices in the hospitality and tourism industry entails energy efficiency, water conservation, bio-diversity, noise pollution reduction, green building design, organic food, green supply chain, waste management, emissions control, environmental education, environmental partnerships, and air quality management (Hsieh, 2012).

The conceptual framework, therefore, shows a hypothesized relationship between environmental commitment and the adoption of green practices. Stakeholder engagement and perceived benefits were used to measure stakeholders' environmental commitment. Energy efficiency, water conservation, waste management, green building design, green supply chain, guest room air quality and carbon footprint reduction were adopted as green practices indicators.

The operational model also shows the presumed moderating effect of environmental leadership on the relationship between independent and dependent variables. Participatory decisions, collaboration, environmental education and awareness were used as indicators for moderating variables, as shown in Figure 1.2.

2.8 Summary

A unified approach to green practices adoption is required, based on strategies for disconnecting tourism and hospitality growth from excessive resource use and destruction of the environment. It is equally important to increase knowledge and awareness among key stakeholders of how environmental issues affect tourism (UNWTO, 2018).

The extent to which hotels perceive primary stakeholder demands and engage them in decision-making will affect the development of a hotel's green practices (Park & Kim, 2014). In addition, stakeholder involvement and leadership in environmental issues affect environmental commitment to the adoption of green practices (Epstein & Buhovac, 2014). Unlike traditional leadership, environmentally specific transformational leadership focuses on long-term effects of greening in organizations. Therefore, this leadership style is more likely to inculcate a green culture among the

employees (Robertson, 2018). In summary, Table 2.1 shows the major research gaps identified from reviewed literature.

Table 2. 1: Summary of Gaps

Topic	Sources and Theoretical Models	Key Contributions	Key Gaps
Stakeholder Engagement	Epstein and Buhovac (2014)	Environmental commitment and environmental leadership	The need for stakeholder commitment in the planning and adoption of green practices
	UNEP (2021)	The need for governments to improve their NDCs in line with Paris Agreement	The need to deliver visitor experiences while moving away from excessive material and carbon-intensive ways yet engaging stakeholders.
	Chen (2019)	Conflicting interests of stakeholders in green strategies formulation and adoption	Need for environmental leadership and stakeholder integration framework
	Rhodes et al. (2014)	Lack of skills for meaningful stakeholder engagement	Need for hotel associations to participate in equipping members with relevant skills and knowledge on meaningful stakeholder engagement.
Stakeholder Perceived Benefits/Costs	Upadhyay et al. (2016); Robertson (2018)	Hotel managers fail to embrace efficient energy systems due to the high initial costs of installation.	Need to create environmental awareness on green practices adoption
		Lack of a green organizational culture and concentration on short-term benefits of green practices.	Need to focus on long-term greening effects in organisations.
Environmental Leadership	Robertson (2018)	Use of environmentally Specific Transformational Leadership	The need to change from old traditional leadership styles that do not embrace green practices.
	Crossman (2011)	Environmental leadership and its practical application	Promotion of green initiatives, standardized auditing, and performance reporting criteria.
	Dumont et al., (2017); Jia et al., (2018)	Green transformational leadership	Need for green human resource management policies

Table 2. 2: Continued

Topic	Sources and Theoretical Models	Key Contributions	Key Gaps
Adoption of Green Practices	UNEP (2021)	Use correctly implemented and supported green policies and procedures to adopt green practices.	The need to accelerate climate action and reach net zero emissions before 2050
	UNWTO (2018)	A unified approach to green practices adoption.	The need for strategies to disconnect hospitality and tourism growth from excessive use of natural resources and environmental degradation
Theoretical Framework	Epstein and Buhovac (2014)	Sustainability Theory	Need for environmental leadership
	Freeman (2010)	Stakeholders Theory	Need for stakeholder engagement
	Simpson et al. (2008)	Carbon Neutrality	Practical tools

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This section focuses on research philosophy, design of the study location, target population, sampling techniques and sample size, data collection methods, pretesting of research instruments, data collection procedures and techniques, data analysis, and logistical and ethical considerations.

3.2 Research Philosophy

This refers to beliefs concerning data collection, analysis and application (Mkansi & Acheampong, 2012). In addition, research philosophy provides a set of guidelines and research assumptions necessary for knowledge development. The philosophical assumptions used in this study included pragmatism, positivism, realism, ontology, epistemology, axiology and methodology. Research philosophy approaches are either epistemology (what is known to be confirmed) or doxology (what is believed to be established), which informs the research design.

Epistemology implies that the researcher collaborated and spent valuable time with participants in the field. The epistemological approach provided guidelines for the selection and justification of the study methodology. Ontology applied where the researcher used themes and quotes from participants to identify and create different scenarios or perspectives. Finally, axiology involves the researchers' interpretation of the values shaping a narrative. At the same time, pragmatism focused on the diverse use of data collection methods to understand practically what the study sought to achieve (Vagle, 2018).

3.3 Design of the Study

An embedded mixed methods design was applied using quantitative and qualitative approaches in a single study. This process involved data collection in providing in-depth understanding to queries regarding subjects in the study without manipulation (Creswell & Plano Clark, 2011). In addition, the design was used to obtain views and facts from the participants. The mixed-methods approach was applied to achieve the research study objectives since it provides stronger inferences than a single method.

The design offers an opportunity for diverse and/or complementary views. Quantitative and qualitative methods, when used in combination, complement each other and allow for more robust analysis, leveraging the strengths of each method (Venkatesh et al., 2016). The embedded mixed-methods design also intensifies the findings' stability, subsequently developing new insights that contribute to the body of knowledge (Saunders et al., 2012).

3.4 Study Area

Kenyan Coast has pride that no other region in Kenya does, and tourism is significant economic activity (Fletcher, 2018). The region lies in the tropical climate zone, which enjoys a characteristic hot, humid weather pattern. The set-up makes the area more attractive, usually in the winter season of Western countries. Most international tourists subsequently flock to the coastal town of Mombasa for a hot sunny getaway, as evident from the bed night's record in Table 3.1. The study was conducted in star-rated hotels along the Kenyan Coast (North and South Coast), 40^0E, 2^0S *(See Appendix 8 for details).*

Table 3. 1: Hotel Bed nights along the Coastal Beach, 2014 – 2018

Zone	2014	2015	2016	2017	2018	Total
Coastal beach	2527.7	2113.8	2286.3	2670.4	3329.0	12,927.2
Total	2527.7	2113.8	2286.3	2670.4	3329.0	12,927.2

Source: (GoK, 2019)

3.5 Target population

The target population for the study was 246 managers comprising 41 general managers and 205 heads of sections from the kitchen, restaurant, front office, housekeeping and maintenance departments selected from 41 star-rated hotels along the Kenyan coast, as shown in Table 3.2. The target population also included customers visiting the beach hotels and professionals/experts in hospitality and tourism. According to the Economic Survey conducted between 2014 and 2018, there were 12,927 bed nights (customers) along the coastal beach (GoK, 2019), as shown in table 3.1. These statistics were used in determining the customers' sample size. The professionals/experts included Ecotourism Kenya, the Ministry of Tourism (MoT), the National Environment Management Authority and the Kenya Coast Tourism Association. The hotels targeted in this study were obtained from Kenya's current star rating classification listed by the Tourism Regulatory Authority *(Appendix 7)* along the Kenyan Coast (TRA, 2015).

Table 3. 2: Target Population

Star Rating	No. of Hotels	General Manager	Heads of Section	Total
Five-star	3	1x3 = 3	3x5 = 15	18
Four-star	13	1x13 = 13	13x5 = 65	78
Three-star	13	1x13 = 13	13x5 = 65	78
Two-star	12	1x12 = 12	12x5 = 60	72
Total	**41**	**41**	**205**	**246**

3.6 Sampling Procedure and Size

3.6.1 Sampling Procedure

The first step involved stratified random sampling. According to Kothari (2004), stratified random sampling entails splitting a population into smaller groups, referred

to as strata, based on shared attributes. In this study, the strata were the hotel ratings. The second step involved stratification using management tiers to include general managers and heads of sections. The third step involved determining the customer's sample size and allocating them proportionately to each hotel cluster. The fourth step involved purposive sampling of key informants comprising professionals and experts from County Tourism Executives, Ecotourism Kenya, the National Environment Management Authority, and the Kenya Coast Tourism Association (Table 3.5). This gave a total of 546 respondents.

3.6.2 Sample Size

The sample size for the study was determined using Yamane's (1967) formula for sample size determination (General Managers and Heads of sections):

$$n = \frac{N}{1+N(e)^2}$$

Where n is the desired sample size, N is the target population, and e is the precision level (0.05 in this case). Therefore, $n = \frac{246}{1+246(0.05)^2} = 152.3$. Approximately 152 managers were selected from the target population, which were allocated proportionally depending on the size of the strata (Table 3.3).

Table 3. 3: Summarized Sample Size (Managers)

Star Rating	Number of hotels sampled	General Manager	Heads of Sections	Total
Five Star	2	$3/41 \times 25 = 2$	$15/205 \times 127 = 10$	12
Four-star	8	$13/41 \times 25 = 8$	$65/205 \times 127 = 40$	48
Three-star	8	$13/41 \times 25 = 8$	$65/205 \times 127 = 40$	48
Two-star	7	$12/41 \times 25 = 7$	$60/205 \times 127 = 37$	44
Total	**25**	**25**	**127**	**152**

Yamane's (1967) formula for sample size determination was also applied for the customers as follows:

$n = \frac{12927}{1+12927(0.05)^2}$ = 388 customers who were selected from the target hotel bed nights. The customers were allocated proportionately to each hotel cluster (Table 3.4).

Table 3. 4: Summarized Sample Size (Customers)

Star Rating	Number of hotels sampled	Number of Customers	Total
Five Star	2	$3/41 \times 388 = 28$	28
Four-star	8	$13/41 \times 388 = 123$	123
Three-star	8	$13/41 \times 388 = 123$	123
Two-star	7	$12/41 \times 388 = 114$	114
Total	**25**	**388**	**388**

Table 3. 5: Summarized Sample Size (Professionals and Experts)

Organization	Professionals and Experts	Total
County Tourism Executives	3	3
NEMA	1	1
Ecotourism Kenya	1	1
Coast Tourism Association	1	1
Total	6	6

3.7 Research Instruments

Research methods applied to attain the study objectives entailed quantitative and qualitative approaches. While semi-structured questionnaires were used to collect quantitative data, semi-structured interview schedules and an observation checklist were used to collect qualitative data. The mixed methodology approach enabled triangulation and validation of information obtained using the three research instruments (Kothari, 2012).

3.7.1 Semi-structured Questionnaires

Self-administered semi-structured questionnaires were used to collect data from the heads of departments/ line managers *(Appendix 2)* and customers *(Appendix 4).* The questionnaires sought information on current and potential green practices, the role of stakeholder engagement, stakeholder perceived benefits and costs and the moderating effect of environmental leadership on the relationship between stakeholders'

commitment and adoption of green designs in star-rated hotels along the Kenyan Coast. The questionnaires consisted of a 5-point Likert scale. The scale ratings were as follows: (strongly disagree=1, disagree=2, neither agree nor disagree=3, agree=4 and strongly agree=5) or (no extent =1, some extent=2, Neutral=3, great extent=4 and very great extent =5).

3.7.2 Interview Guide/Schedule

Data from key informants of the study was collected using a semi-structured interview guide/schedule. The semi-structured interview guide *(Appendix 3)* was used to collect data from hotels' general managers. On the other hand, an interview schedule consisting of semi structured questions *(Appendix 5)* was also used to collect data from hospitality/tourism professionals and experts. Audiotapes and field note books were used for recording the information. The semi-structured interview and open-ended questions sought detailed information on current and potential green practices, the role of stakeholder engagement, perceived benefits, and the moderator effect of environmental leadership on the relationship between independent and dependent variables in star-rated hotels along the Kenyan Coast.

3.7.3 Measurement of Variables

The study considers the corporate sustainability model as a theoretical lens through which the influence of stakeholders' environmental commitment to adopting green practices was measured. The survey constructs were borrowed from previous studies but slightly modified to suit the hospitality industry context (Epstein & Buhovac, 2014; Sequeira et al., 2007; Henriques and Sadorsky, 1999; Hsieh, 2012). The environmental commitment was measured using four items of the stakeholders' engagement scale (Black & Härtel, 2004; Dolores López-Gamero et al., 2011),

yielding an acceptable Cronbach's alpha of .786. All the items were measured using a 5-point Likert scale ranging from 1= '*No extent*' to 5= *'Very great extent'*.

On the other hand, objective measures of stakeholders' perceived benefits as an indicator of environmental commitment are not easily achievable in the hotel sector. Therefore, subjective attributes in the form of stakeholders' perceptions were used. Researchers normally apply subjective measures to ascertain perceived benefits due to difficulties interpreting and comparing corporate data among several hospitality organizations (Han, 2012). The Cronbach's alpha coefficient for stakeholders' perceived benefits was acceptable (α = .775). Stakeholders' perceived benefits measures were scored on a five-point Likert scale with 1 = '*strongly disagree'* and 5= '*strongly agree'*.

Environmental leadership as a moderating variable was measured using five items adapted and modified from Voegtlin's (2011) scale. The Cronbach's alpha level for this measure was adequate for data analysis (α= .853). All the items were measured on a 5-point Likert-type scale ranging from 1= '*No extent*' to 5= *'Very great extent'*.

The dependent variable, the adoption of green practices, was measured using 12 items adapted and modified from Dief and Font (2012) and Park et al. (2014). In addition, Cronbach's alpha level for this scale was acceptable (α = .812). The survey items were measured on a 5-point Likert-type scale ranging from 1= '*No extent*' to 5= *'Very great extent'*.

3.7.4 Observation Checklist

The researcher used an observation checklist to confirm current green practices adopted in star-rated hotels *(Appendix 6)*. The checklist consisted of observable green

practices confirmed during the on-site assessment. In addition, photographs were taken using a camera to record this information.

3.8 Pretesting of Research Instruments

The research instruments were pretested in November 2019. The pretest was conducted in four hotels representing each star rating (2 – 5 stars), and a balanced representation of the study area was observed. Questionnaires and interview schedules were pretested involving line managers, customers, general managers and hospitality/ tourism experts. This was carried out to evaluate the relevance of the questionnaires and interview schedules. It also revealed the respondents' clarity of research study constructs (Kothari, 2012). The respondents used in pre-testing were excluded from the final survey.

3.8.1 Validity of Research Instruments

This attribute of research instruments is essential since it reveals the extent to which the instrument measures what it purported to measure. Content validity, construct and criterion-related validity are crucial. An extensive literature review on stakeholders' engagement and green practices produced the measures to adopt for the study, thus providing content and construct validity. A further refinement of the measurements was conducted through a pre-test of the questionnaires and interview schedules by subjecting them to a vetting process from hospitality/tourism experts.

3.8.2 Reliability of Research Instruments

A reliability test was done to assess the ability of the research instrument to produce consistent results. The research instruments' reliability was analysed for internal consistency with Cronbach’s alpha coefficient prior to their use in the research study. The purpose of pretesting was to determine the scale’s internal consistency estimate. For the

research instrument to be reliable, a Cronbach alpha coefficient of 0.7 - 1.0 is acceptable for all responses (Kothari, 2012). The reliability results of the study constructs are presented in Table 3.6. The reliability alpha coefficients for all the constructs were above the threshold point of .70 (Thorndike, 1995) and thus were considered reliable for further data analysis.

Table 3. 6: Cronbach's Alpha Coefficient Reliability Analysis

Variables	Number of Items	Cronbach's Alpha coefficient score	Remarks (Above 0.7 = Acceptable)
Stakeholder Engagement	4	.786	Acceptable
Stakeholders' Perceived Benefits	14	.775	Acceptable
Environmental Leadership	5	.853	Acceptable
Green Practices Adoption	12	.812	Acceptable

3.9 Data Collection Procedure

The researcher clearly explained the purpose of the study, as shown in the cover letter *(Appendix 1)*. Murang'a University issued an introductory letter for the research study, School of Hospitality and Tourism Management, on 24th May 2019 *(Appendix 10*). National Commission for Science, Technology and Innovation (NACOSTI) granted the research permit for the data collection on 19th August 2019 (*Appendix 9*). The researcher and two research assistants administered an aggregate of 515 questionnaires to line managers and customers. The questionnaires that respondents did not fill on the spot were dropped and picked later. A follow-up was made by contacting staff using telephone calls to avoid non-response or low response rates.

The interviews were conducted on face to face basis. Some interviewees requested that interview schedules be sent through email due to time pressure and the Covid 19 outbreak. The structuring of the instruments made it easy to obtain information from the respondents. The researcher and research assistants organized pre-visits through the human resource managers using telephone and in-person visits. The pre-visits

sought to explain the purpose of the research study and subsequent consent for data collection. All the respondents were involved in the data collection exercise based on their informed consent. Data collection was done within five months between November 2019 and March 2020. While 515 questionnaires were issued to line managers and customers, twenty-eight interviews were conducted with general managers and hospitality/tourism experts.

3.10 Data Analysis

Data treatment and diagnostic tests, including normality and multi-collinearity tests, were conducted to ensure the fitness of data for statistical analysis (Kothari, 2004). The quantitative data were analysed using different statistical tests. Descriptive statistics determined the mean, standard deviation, frequency, and percentages of different variables.

Inferential statistics were used to determine the relationship between independent and dependent variables. Multiple linear regression, moderated multiple regression and one sample t-test were used to test the relationship between stakeholder commitment, environmental leadership and adoption of green practices. The analysis and presentation were done using tables and graphs. Qualitative data were transcribed, categorized into themes and analysed using content analysis.

3.10.1 Diagnosis Tests

Violation of assumptions tests was conducted, including tests for linearity, normality, multicollinearity and homoscedasticity. Linearity assumes that the independent variables have a linear relationship with the dependent variable. The Analysis of Variance (ANOVA) deviation from the linearity test was used to test whether the linearity assumption was fulfilled.

For valid inferences to be made from the regression model, the residuals of the regression should be normally distributed (Normality test). Residuals imply the error terms, the difference between actual and predicted values. A normal probability plot (P-P plot) was used to determine if the residuals were normally distributed.

Multicollinearity occurs when the independent variables are highly correlated with each other. Multicollinearity is a problem if the regression model does not accurately relate the dependent variable with the correct independent variables, resulting in incorrect muddled results and inferences. Therefore, the variance inflation factor (VIF) was used in testing for multicollinearity.

For multicollinearity not to be a problem, the VIF values should be below 10; VIF values below 5 are considered the best. Homoscedasticity is obeyed if the plots are equally distributed below and above the 0 mark. The tests ensured the fitness of data for contemporary statistical analysis and prediction (Kothari, 2004).

3.10.2 Quantitative Data Analysis

One sample/ independent sample t-test, multiple linear regression and moderated multiple or hierarchical regression analysis were the inferential statistics used to determine the relationship between independent and dependent variables for testing the hypothesis and statistical prediction. Determining the relationship between two or more variables statistically is referred to as regression (Kothari, 2004). Ordinal data were converted to intervals using composite scores before testing and interpreting the relationship between the independent and dependent variables. This also helped to determine the prediction strength of the statistical model (multiple linear regression).

The R-value in regression analysis indicates a simple correlation, while R^2 (square) denotes the value of aggregate change in the adoption of green practices, which can be explained by stakeholder engagement and stakeholders' perceived benefits after conducting the tests. The multiple linear regression results were tabulated in a model summary. F statistics were further used to test the statistical significance of the regression model (goodness of fit). To check how the regression model with stakeholder engagement and perceived benefits could predict the adoption of green practices, an Analysis of Variance (ANOVA) table was generated. A significance test was conducted at a 5% level (Kothari, 2004).

The significance of beta values from the coefficients of *X* variables was used to interpret the final study's results. The coefficients table was further generated to assess how well the dependent variable could be predicted from the independent variable composites. In terms of effect sizes when measuring the strength of predictor variable, coefficient of determination (R^2) values were categorized as follows; $R^2 < 0.02$ - Very weak, $0.02 <= R^2 < 0.13$ – Weak, $0.13 <= R^2 < 0.26$ – Moderate, $R^2 >= 0.26$ – Substantial (Cohen, 2013).

The information provided by the table was also used to establish whether the coefficients were jointly statistically significant to contribute to the model. The regression equation was finally presented (Kothari, 2004). Moderated multiple regression was used to test the statistical significance of the moderating variable when plugged into the model summary as an interaction term. R^2 was used to determine the interaction term's statistical significance and whether environmental leadership moderates the relationship between the independent and dependent variables. The results of the regression model with the moderator variable plugged in were compared

to the variation of the regression model without the moderator. The additional variation in green practices was attributed to the moderator variable and its statistical significance.

3.10.3 Formulation of Empirical Model

Green practices were considered to be influenced by stakeholder engagement, perceived benefits/costs, and the environmental leadership moderating effect. The model is presented as: - ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_1X_2 + \varepsilon$). Where: - Green practices (Y) = β_0 + β_1 Stakeholder engagement + β_2 Stakeholder perceived benefits + $\beta_3X_1X_2$ Environmental leadership Moderating effect + ε. β-values were used to test hypotheses H_{01}, H_{02} and H_{03}, as shown in Table 3.7 (procedure for hypotheses testing).

Table 3. 7: Hypotheses, Tests, Criteria Summary

Objectives	Hypotheses	Statistical Model	Interpretation of Hypothesis
2. To determine stakeholder engagement's role in adopting green practices among star-rated hotels along the Kenyan Coast.	H_{01} There is no significant relationship between stakeholder engagement and the adoption of green practices in star-rated hotels	($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_1X_2 + \varepsilon$) Whereby: Y = Green Practices, β_0 = the constant, X_1 = Stakeholder engagement; X_2 =Perceived benefits, X_3 = Environmental leadership.	H_{01}: $\beta = 0$ H_{a1}: $\beta \neq 0$ Reject H_0 if $p > 0.05$, otherwise fail to reject the H_0 β = Regression coefficients
3. To establish the effect of stakeholder perceived current and potential benefits/costs on green practices adoption by star-rated hotels along the Kenyan Coast.	H_{02} There is no significant relationship between stakeholder perceived benefits and costs on the adoption of green practices in star-rated hotels	($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_1X_2 + \varepsilon$) Whereby: Y = Green Practices, β_0 = the constant, X_1 = Stakeholder engagement; X_2 =Perceived benefits, X_3 = Environmental leadership.	H_{02}: $\beta = 0$ H_{a2}: $\beta \neq 0$ Reject H_0 if $p > 0.05$, otherwise fail to reject the H_0 β = Regression coefficients
4. To determine the moderating effect of environmental leadership on the relationship between environmental commitment and green practices adoption among star-rated hotels along the Kenyan Coast	H_{03} There is no significant moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices in star-rated hotels	($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_1X_2 + \varepsilon$) $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_1X_2 + \varepsilon$) Whereby: Y = Green Practices, β_0 = the constant, X_1 = Environmental Commitment Centred; X_2 = Environmental Leadership Centred; X_3 = Environmental Commitment/Environmental leadership Centred, ε = Error term.	H_{03}: $\beta = 0$ H_{a3}: $\beta \neq 0$ Reject H_0 if $p > 0.05$, otherwise fail to reject the H_0 β = Regression coefficients

3.10.4 Qualitative Data Analysis

The study applied inductive analysis, identifying thematic areas from qualitative data collected from key informants through interviews. Thematic analysis refers to inductive methods of analysing qualitative data (ontology), which focused on identifying, organizing, and interpreting thematic areas in narrative data. Kothari (2012) defines themes as recurring and unique attributes of respondents' accounts related to research objectives. Codes were used to identify respondents from whom the quotes or texts were obtained as follows; General Managers from two-star-rated hotels (A1), General Managers from three-star-rated hotels (A2), General Managers from four-star rated hotels (A3), and General Managers from five star rated hotels (A4). For the experts, the coding was done as explained; Ministry of Tourism Experts (E1), NEMA Experts (E2), Ecotourism Experts (E3), and the Kenya Coast Tourism Association Experts (E4). The summary of analysis techniques used is shown in Table 3.8.

Table 3. 8: Summary of Data Analysis Methods

Research Objectives	Source of Data	Research Design	Data Collection	Method of analysis
1. To establish current and potential green practices adopted by star-rated hotels along the Kenyan Coast.	Questionnaire Observation checklist	Quantitative Qualitative	Line managers' Questionnaire Customer' Questionnaire	• Descriptive • Independent sample t-test • Multiple Linear Regression • Thematic Analysis
2. To determine stakeholder engagement's role in adopting green practices among star-rated hotels along the Kenyan Coast.	Questionnaires Interview schedule	Quantitative Qualitative	Line managers' Questionnaire Customers' Questionnaire Experts' Interview Schedule General managers' Interview Schedule	• Descriptive • Independent sample t-test • Multiple Linear Regression • Thematic Analysis
3. To establish the effect of stakeholder perceived current and potential benefits/costs on green practices adoption by star-rated hotels along the Kenyan Coast.	Questionnaire Interview schedule	Quantitative Qualitative	Lime managers' Questionnaire Customers' Questionnaire Experts' Interview Schedule General Managers' Interview Schedule	• Descriptive • Independent sample t-test • Multiple Linear Regression • Thematic Analysis

Table 3. 9: Continued

Research Objectives	Source of Data	Research Design	Data Collection	Method of analysis
4. To determine the moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices among star-rated hotels along the Kenyan Coast	Questionnaire Interview schedule	Quantitative Qualitative	Line managers' Questionnaire Customers' Questionnaire Experts' Interview Schedule General managers' Interview Schedule	• Descriptive • Independent sample t-test • Moderated Multiple Regression • Thematic Analysis
Hypotheses 1-4				• Regression Coefficients

3.11 Ethical Considerations

The researcher complied with all ethical issues, especially seeking the respondent's consent, confidentiality and honesty. Before the commencement of fieldwork, an introductory letter was issued from Murang'a University, School of Hospitality and Tourism (*Appendix 10*) and a NACOSTI research permit (*Appendix 9*) was sought by the researcher. Further, an approval letter was later granted from Muranga University Graduate School (*Appendix 11*). The researcher and the research assistants arranged with the star-rated hotels for pre-visits. The purpose of the research study was explained and the researcher sought consent before administering the research instruments to the respondents

Ethics are a basis for carrying out effective research, and as such, the behaviour and conduct of a researcher during the research process are imperative (Kothari, 2012). Data collection was done based on informed consent from the respondents. Respondents were identified by codes and general titles rather than the name of the person or hotel. Respondents' views were also treated with confidentiality to protect them and uphold research ethics by using anonymous questionnaires where the names of individual respondents were not used.

Additionally, respondents were notified of their voluntary participation in the survey and assured of no risk if they withdrew their participation at any given time. To avoid bias and ensure objectivity in the data collection process, the questionnaires were developed so that respondents understood the meaning of the questions. Permission to record the interviews was sought and obtained from interviewees to ensure that analysed data reflected the participants' words. This helped to eliminate interview bias resulting from distorted information.

3.12 Summary

This chapter addressed the use of different research philosophies to determine the research design that was applied in the study. The methodology involved the use of embedded mixed methods design which embraces both quantitative and qualitative approaches. Research instruments were guided by the latter approaches hence the use of survey questionnaires and interview schedules which were used to obtain in depth information from the respondents.

Both quantitative and qualitative analysis were embraced in line with the research design. Quantitatively data was analysed using descriptive and inferential statistics while qualitative analysis was done thematically. Ethical considerations were made to protect the subjects of the study from any risk and ensure objectivity in the data collection process.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This study examined environmental commitment to green practices in star-rated hotels along the Kenyan Coast. Therefore, this chapter addresses the findings and discussions of this study as follows; establishing current and potential green practices adopted by star-rated hotels and determining the role of stakeholder engagement in the adoption of green practices among star-rated hotels.

In addition, the study also sought to establish the effect of perceived current and potential benefits/costs of green practices adopted by star-rated hotels and determine the moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices among star-rated hotels. This chapter also covers the statistical analysis of data, discussion of findings, and testing of the study hypotheses.

4.2 Response Rate

The study employed two research instruments which targeted four sets of respondents. Five hundred fifteen questionnaires were distributed, 127 to line managers and 388 to the customers, as shown in Table 4.1. Four hundred forty-four questionnaires were returned and deemed fully filled and adequate for data analysis. One hundred six from the line managers and 338 from the customers. For the interview schedules, 25 general managers and six hospitality/tourism professionals were targeted. Twenty-three interviews were successfully conducted with general managers, while five interviews involved hospitality/tourism professionals. This response represented an overall return rate of 86.4%. The return rate of questionnaires was 83.5% for line managers and

87.1% for customers. On the other hand, interview schedules recorded a response rate of 92% for general managers and 83.3% for hospitality/tourism professionals. Saleh and Bista (2017) noted that response rates above 25% are satisfactory for data analysis.

Table 4. 1: Response Rate

Instrument	Target	Achieved	Valid for Analysis	Percentage
Questionnaire - Line managers	127	106	106	83.5%
Questionnaire – Customers	388	338	338	87.1%
Interview Schedule - General Managers	25	23	23	92%
Interview Schedule - Tourism/Hospitality Professionals	6	5	5	83.3%
Average Response Rate				86.4%

Source: Survey data, (2019/2020)

4.3 General Characteristics of Line Managers

The general information for the line managers is presented in Table 4.2.

Table 4. 2: General Characteristics of Line Managers

		F	%
Gender	Male	73	68.9%
	Female	33	31.1%
Experience	Less than 1 year	25	23.6%
	Between 1-4 Years	17	16.0%
	Between 5-8 Years	13	12.3%
	Between 9-12 Years	48	45.3%
	Above 12 Years	3	2.8%
Age	Between 18-24 Years	17	16.0%
	Between 25-32 Years	17	16.0%
	Between 33-45 Years	48	45.3%
	Between 46-55 Years	24	22.6%
	Above 55 Years	0	0.0%
Education	Certificate	27	25.5%
	Diploma	32	30.2%
	Higher National Diploma	3	2.8%
	Degree	38	35.8%
	Masters	6	5.7%
	Others	0	0.0%

Of the total line managers, 68.9% were male, while 31.1% were female. Most line managers had worked for 9-12 years, as shown by a response of 45.3%. In addition, 23.6% had worked for less than one year but not less than six months, 16.0% had worked for 1-4 years, 12.3% had worked for 5-8 years, and 2.8% had worked for above 12 years.

It was noted that 45.3% of the line managers were aged between 33-45 years, 22.6% were aged between 46-55 years, 16.0% were aged between25-32 years, and 16.0% were aged between 18-24 years. Lastly, regarding the education levels of the respondents, about 35.8% had a bachelor's degree, 30.2% were diploma holders, 25.5% had a certificate, 6.6% had a master's degree, and 1.9% were higher national diploma holders.

4.4 General Characteristics of Customers

The general characteristics of the customers are reported in Table 4.3. 78.7% of the customers were male, compared to 21.3% of the respondents, who were female. Additionally, 93.2% of the customers are Kenyan, while 6.8% are Non-Kenyan. About 38.2%, 25.7%, 17.5%, 15.1% and 3.6% of the customers were aged between 31-40 years, between 21-30 years, between 41-50 years, between 51-60 years and 61 years and above, respectively. The table also shows that 43.8% were diploma holders, 33.7% had a bachelor's degree, 19.5% were certificate holders, and 1.8% and 1.2% of the customers had a higher national diploma and master's degree, respectively.

Table 4. 3: General Characteristics of Customers

		F	%
Gender	Male	266	78.7%
	Female	72	21.3%
Nationality	Kenyan	315	93.2%
	Non-Kenyan	23	6.8%
Age	Between 21-30 years	87	25.7%
	Between 31-40years	129	38.2%
	Between 41-50years	59	17.5%
	Between 51-60years	51	15.1%
	61years and above	12	3.6%
Education level	Certificate	66	19.5%
	Diploma	148	43.8%
	Higher National Diploma	6	1.8%
	Degree	114	33.7%
	Masters	4	1.2%
	Others	0	0.0%

4.5 Current and Potential Green Practices Adopted by Star-Rated Hotels

The first objective sought to establish the current and potential green practices adopted by star-rated hotels along the Kenyan Coast. Line managers and the customers were presented with current and potential green practices. They were required to indicate the extent to which they had adopted the practices in their star-rated hotels along the Kenyan Coast. For the line managers, the findings were as reported in Table 4.4.

Table 4. 4: Current and Potential Green Practices Adopted as Reported by Line Managers

As part of going green, our hotel… Scale:	1 *n* (%)	2 *n* (%)	3 *n* (%)	4 *n* (%)	5 *n* (%)
Implements renewable energy programs, e.g. the Use of wind or solar power	4 (3.8%)	22 (20.8%)	10 (9.4%)	45 (42.5%)	25 (23.6%)
Uses energy-efficient equipment and lighting	7 (6.6%)	24 (22.6%)	4 (3.8%)	47 (44.3%)	24 (22.6%)
Composts organic kitchen waste	7 (6.6%)	22 (20.8%)	42 (39.6%)	15 (14.2%)	20 (18.9%)
Installs occupancy sensors or key card control systems in guest rooms to reduce in-room energy consumption	34 (32.1%)	21 (19.8%)	23 (21.7%)	7 (6.6%)	21 (19.8%)
Implements a linen and towel reuse program	7 (6.6%)	16 (15.1%)	4 (3.8%)	21 (19.8%)	58 (54.7%)
Installs water-efficient devices and equipment, e.g. Low, water volume toilets, shower heads, laundry equipment or dishwashers	11 (10.4%)	12 (11.3%)	0 (0.0%)	45 (42.5%)	38 (35.8%)
Uses environmentally friendly cleaners or detergents	4 (3.8%)	17 (16.0%)	0 (0.0%)	39 (36.8%)	46 (43.4%)
Involves the key stakeholders in green practices decision making	9 (8.5%)	26 (24.5%)	4 (3.8%)	24 (22.6%)	43 (40.6%)
Implements recycling programs	6 (5.7%)	21 (19.8%)	13 (12.3%)	52 (49.1%)	14 (13.2%)
Uses refillable amenity dispensers	9 (8.5%)	16 (15.1%)	0 (0.0%)	49 (46.2%)	32 (30.2%)
Serves proper food portions to reduce food waste	0 (0.0%)	21 (19.8%)	0 (0.0%)	9 (8.5%)	76 (71.7%)
Purchases recyclable products	8 (7.5%)	17 (16.0%)	3 (2.8%)	34 (32.1%)	44 (41.5%)

Note. Likert-scale: 5 = very great extent, 4 = great extent, 3 = neutral, 2 = some extent, 1 = no extent

From the findings, it is evident, according to line managers, that star-rated hotels along the Kenyan Coast had adopted green energy programs, for instance, the use of wind or solar power as part of going green to a great extent (42.5%) very great extent

(23.6%), some extent (20.8%), were neutral (9.4%) and to no extent (3.8%) respectively. Nevertheless, on the other hand, star-rated hotels on the Kenyan Coast use energy-efficient equipment and lighting to a great extent (44.3%), very great extent (22.6%), to some extent (22.6%), to no extent (6.6%) and were neutral (3.8%) as indicated by the line managers respectively.

According to 32.1% of the line managers, star-rated hotels along the Kenyan Coast install electronic key card control systems or occupancy sensors to reduce in-room energy consumption in guest rooms to no extent, and 21.7% were neutral. In addition, 19.8% to a great extent, 19.8% to some extent and 6.6% to a great extent. It was also evident that 39.6% of the line managers were neutral about star-rated hotels composting organic kitchen waste on the Kenyan Coast. Further, 20.8% indicated that star-rated hotels on the Kenyan Coast compost organic kitchen waste to some extent, 18.9% to a great extent, 14.2% to a great extent and 6.6% to no extent.

The majority of the line managers indicated that star-rated hotels along the Kenyan Coast implement linen and towel reuse programs to a great extent, 19.8% to a great extent, 15.1% to some extent, 6.6% to no extent and 3.8% were neutral. In addition, star-rated hotels along the Kenyan Coast install water-efficient devices and equipment to a great extent and very great extent, as demonstrated by 42.5% and 35.8% of the line managers. Additionally, 11.3% indicated some extent and 10.4% to no extent. Such devices and equipment include low water volume toilets, showerheads, water-efficient laundry equipment or dishwashers.

Star-rated hotels along the Kenyan Coast use environmentally friendly cleaners or detergents to a very great extent and great extent as shown by a response of 43.4% and 36.8% of the line managers, 16.0% indicated to some extent and 3.8% to no extent at

all. Furthermore, according to 40.6% of the line managers, star-rated hotels along the Kenyan Coast involve stakeholders in green practices decision-making to a very great extent, 24.5% to some extent, 22.6% indicated to a great extent, 8.5% to no extent and 3.8% were neutral on stakeholder involvement in decision making.

The findings also show that 49.1% of the line managers thought that star-rated hotels along the Kenyan Coast implement recycling programs to a great extent, 19.8% to some extent, 13.2% to a very great extent, 12.3% to some extent and 5.7% to no extent. In addition, Star-rated hotels along the Kenyan Coast use refillable amenity dispensers to a great extent (46.2%), very great extent (30.2%), to some extent (15.1%), and no extent (8.5%) as indicated by the line managers respectively.

A majority of the line managers, 71.7%, acknowledged that star-rated hotels serve proper food portions to a very great extent, 19.8% indicated that they serve proper food portions to some extent, while 8.5% indicated that they serve proper food portions to a great extent. Lastly, the line managers indicated that star-rated hotels along the Kenyan Coast purchase recyclable products to a very great extent (41.5%), great extent (32.1%), some extent (16.0%) no extent (7.5%) and neutral (2.8%) respectively.

A one-sample t-test from the indifference of 3 (neutrality) was used to assess the significant green practices adopted by star-rated hotels along the Kenyan Coast as per the line managers' opinions. In addition, the means were evaluated to identify those responses below or above the test mean of 3 (neutrality). Those below a mean of 3 with a significant p-value were deemed as negative green practices, while those above a mean of 3 and a significant p-value were deemed as positive green practices at star-rated hotels along the Kenyan Coast (Kothari, 2012).

Those whose Likert scale responses are insignificant will be deemed to have not been adopted or have no potential to be adopted. The t-test findings are reported in Table 4.5. From the findings, the green practice "composts organic kitchen waste" was not significant (p-value>0.05). Therefore, star-rated hotels along the Kenyan Coast have not adopted it as a green practice and have no potential to adopt it. The p-value for "…installs occupancy sensors or key card control system in guest rooms to reduce in-room energy consumption" is less than 0.05 (therefore significant). However, the mean is below 3, implying that this green practice is negatively adopted in star-rated hotels along the Kenyan Coast.

Concerning energy efficiency, the study observed that most hotels used stickers in rooms bearing such instructions as 'conserve energy', 'close all windows and doors when air conditioning is on', and 'turn off lights when not in use, among others. Nevertheless, the study further noted that most rooms still had the lights on during the day. On the same note, the study also observed that more than 50% (n =17) of the hotels had not installed occupancy sensors or key card control systems. Concerning energy management, hotel manager 'A4' indicated the following;

> *"[...] we are in the process of installing a key card control system; however, this requires more serious financial consideration since the initial cost is a bit higher."*

Table 4.5 also shows the significant green practices adopted by the star-rated hotels as reported by the hotel line managers. The mean of the green practices was compared with a set mean value of 3.00 using a one-sample t-test at a 5% significance level. Results indicated that several green practices were statistically different from the mean of 3.00 (p-value < .05) and include; (1) the use of renewable energy, (2) energy-efficient equipment, (3) the linen and towel reuse program, (4) use of water-efficient

devices, (5) use of environmentally friendly cleaners or detergents, (6) key stakeholders involved in green practices decision making, (7) recycling programs, (8) refillable devices, (9) serving proper food portions, and (9) purchasing of recyclable products.

Table 4. 5: Significant Green Practices Adopted by Hotels and Reported by Line managers

As part of going green, our hotel…	Mean	*t*	*df*	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Implements renewable energy programs, e.g. the Use of wind or solar power	3.61	5.41	105	.000	.61321	.3883	.8381
Uses energy-efficient equipment and lighting	3.54	4.42	105	.000	.53774	.2968	.7787
Composts organic kitchen waste	3.18	1.59	105	.115	.17925	-.0444	.4029
Installs occupancy sensors or key card control systems in guest rooms to reduce in-room energy consumption	2.62	-2.61	105	.010	-.37736	-.6642	-.0905
Implements a linen and towel reuse program	4.01	7.75	105	.000	1.00943	.7511	1.2678
Installs water-efficient devices and equipment, e.g. Low water volume toilets, showerheads, water-efficient laundry equipment or dishwashers	3.82	6.43	105	.000	.82075	.5675	1.0740
Uses environmentally friendly cleaners or detergents	4.00	8.61	105	.000	1.00000	.7698	1.2302
Involves the key stakeholders in green practices decision making	3.62	4.46	105	.000	.62264	.3458	.8994
Implements recycling programs	3.44	4.07	105	.000	.44340	.2273	.6595
Uses refillable amenity dispensers	3.74	6.03	105	.000	.74528	.5001	.9904
Serves proper food portions to reduce food waste	4.32	11.41	105	.000	1.32075	1.0913	1.5502
Purchases recyclable products	3.84	6.52	105	.000	.83962	.5845	1.0948

Note. *df* = degrees of freedom. *t* = t-Test. Likert-scale: 5 = very great extent, 4 = great extent, 3 = neutral, 2 = some extent, 1 = no extent. Scale mean = 3.00

According to line managers, the responses on current green practices adopted by star-rated hotels imply that most of these practices have significantly been adopted; however, occupancy sensors or key card control systems are negatively adopted among star-rated hotels along the Kenyan Coast. These findings are supported by (Upadhyay et al., 2016), who pointed out that hotel managers may not recognize that

utility costs saved by investing in new and efficient energy appliances or systems will repay the initial cost of installation and contribute to enhanced performance.

During the study, it was discovered that there were folders containing policies, tips and guidelines for water management, waste management and energy efficiency, among others. The observations made were that most hotels usually formulate policies that provide guidelines for adopting different green practices. This finding was supported by Sullivan (2008), who argues that environmental actions designed and implemented by the facility that causes pollution to help them attain the environmental objectives and ameliorate internal operations to reduce negative effects on the external environment.

These environmental actions, also known as self-regulations or voluntary approaches, play two critical roles in the environmental policy area by acting as changeover instruments for the hotel to prepare for new or stricter regulations and encourage environmental leadership and innovation. Plate 4.1 shows pictures of water policy and water treatment/ purification plants in star-rated hotels along the Kenyan Coast.

Water policy folder

Water purification plant

Plate 4. 1: A collage showing some adopted water efficiency measures

Water management practices observed included low water volume taps and toilets and stickers instructing users to turn off water taps when not in use. The in-house guests were encouraged to participate in water conservation through a linen reuse program for towels and bed linen. Hotel manager 'A2', echoed the following sentiments;

> *"We encourage linen reuse in rooms through towel talk on stickers. The practice is voluntary; guests may willingly use towels or bed linen for an extra day before being handed over to the laundry for washing. This reduces water consumption, wastewater generation and energy used in laundering."*

Further, it was observed that most star-rated hotels obtain water for day-to-day operations from boreholes. For example, almost 50% of the star-rated hotels used borehole water in treatment/ purification plants where freshwater was packaged and stored in clean storage while wastewater was discharged to separate underground storage (*see Plate 4.1 above*).

Hotel manager 'A3', revealed the following;

> *"We not only purify water for use internally by the hotel but also have a supply point where the local community refill their water dispensers at a cheaper price. In addition, wastewater released during purification is pumped to underground storage tanks for irrigation and cleaning purposes."*

This implies that water conservation measures help the hotels to support water-starved communities and sustain the carrying capacity of ecosystems with a delicate ecological balance. The customers were also presented with several green practices. Finally, they were required to indicate the extent to which star-rated hotels along the Kenyan Coast have adopted them or have the potential to adopt them, and the findings were as reported in Table 4.6.

Table 4. 6: Current Green Practices Adopted by Hotels as Reported by Customers

As part of going green, the hotel… Scale:	1 *n*(%)	2 *n*(%)	3 *n*(%)	4 *n*(%)	5 *n*(%)
Implements renewable energy programs, e.g. the Use of wind or solar power	20 (5.9%)	110 (32.5%)	64 (18.9%)	101 (29.9%)	43 (12.7%)
Uses energy-efficient equipment and lighting	24 (7.1%)	58 (17.2%)	9 (2.7%)	161 (47.6%)	86 (25.4%)
Composts organic kitchen waste	53 (15.7%)	127 (37.6%)	84 (24.9%)	9 (2.7%)	65 (19.2%)
Installs occupancy sensors or key card control systems in guest rooms to reduce in-room energy consumption	127 (37.6%)	90 (26.6%)	24 (7.1%)	34 (10.1%)	63 (18.6%)
Implements a linen and towel reuse program	53 (15.7%)	82 (24.3%)	44 (13.0%)	17 (5.0%)	142 (42.0%)
Installs water-efficient devices and equipment, e.g. Low water volume toilets, shower heads, water-efficient laundry equipment or dishwashers	20 (5.9%)	82 (24.3%)	20 (5.9%)	100 (29.6%)	116 (34.3%)
Uses environmentally friendly cleaners or detergents	0 (0.0%)	72 (21.3%)	33 (9.8%)	133 (39.3%)	100 (29.6%)
Involves the key stakeholders in green practices decision making	0 (0.0%)	82 (24.3%)	53 (15.7%)	109 (32.2%)	94 (27.8%)
Implements recycling programs	31 (9.2%)	93 (27.5%)	33 (9.8%)	155 (45.9%)	26 (7.7%)
Uses refillable amenity dispensers	22 (6.5%)	72 (21.3%)	20 (5.9%)	170 (50.3%)	54 (16.0%)
Serves proper food portions to reduce food waste	12 (3.6%)	72 (21.3%)	16 (4.7%)	107 (31.7%)	131 (38.8%)
purchases recyclable products	41 (12.1%)	72 (21.3%)	56 (16.6%)	103 (30.5%)	66 (19.5%)

Note. Likert-scale: 5 = very great extent, 4 = great extent, 3 = neutral, 2 = some extent, 1 = no extent.

The study revealed that customers thought that star-rated hotels along the Kenyan Coast adopt renewable energy programs as part of going green to some extent (32.5%), to a great extent (29.9%), neutral (18.9%), to a very great extent (12.7%) and no extent (5.9%) respectively. It was also evident from the table that 47.6% and 25.4% of the customers thought that star-rated hotels along the Kenyan Coast use energy-efficient equipment and lighting to a great extent and a very great extent, respectively. Additionally, 17.2% indicated to some extent, 7.1% indicated to no extent, and 2.7% were neutral.

According to the table, customers also had the opinion that star-rated hotels along the Kenyan Coast install electronic key card control systems or occupancy sensors to reduce room energy consumption in guest rooms; to no extent (37.6%), to some extent (26.6%), to a very great extent (18.6%), to a great extent (10.1%) and neutral (7.1%) respectively. In addition, for 37.6% of the customers, star-rated hotels compost organic kitchen waste to some extent, 24.9% are neutral, 19.2% stated to a very great extent, 15.7% highlighted to no extent, and 2.7% indicated to a great extent.

It is also evident from the table that 42.0% of the customers thought that star-rated hotels along the Kenyan Coast adopt linen and towel reuse programs to a very great extent, 24.3% indicated to some extent, 15.7% indicated to no extent, 13.0% were neutral, and 5.0% indicated to a great extent. Furthermore, the customers also indicated that star-rated hotels along the Kenyan Coast install water-efficient devices and equipment to a very great extent (34.3%), to a great extent (29.6%), to some extent (24.3%), neutral (5.9%) and no extent (5.9%) respectively.

The findings also showed that 39.3% and 29.6% of the customers thought that star-rated hotels along the Kenyan Coast use environmentally friendly cleaners or detergents to a great extent and a very great extent, respectively, 21.3% indicated to some extent, and 9.8% were neutral. Furthermore, according to the findings, 32.2% and 27.8% of the customers thought that star-rated hotels along the Kenyan Coast involve key stakeholders in green practices decision-making to a great extent and a very great extent, respectively, 24.3% indicated to some extent, and 15.7% were neutral.

According to 45.9% of the customers, star-rated hotels along the Kenyan Coast adopt recycling programs to a great extent, 27.5% indicated to some extent, 9.8% were

neutral, 9.2% indicated to no extent, and 7.7% indicated to a very great extent. In addition, Star-rated hotels along the Kenyan Coast use refillable amenity dispensers to a great extent, as disclosed by 50.3% of the customers, to some extent according to 21.3% of the customers, to a very great extent (16.0%), to no extent (6.5%) and 5.9% of the customers were neutral.

Star-rated hotels along the Kenyan Coast serve proper food portions to reduce food waste to a very great extent and a great extent as disclosed by 38.8% and 31.7% of the customers, respectively; 21.3% of the customers indicated to some extent, 4.7% were neutral, and 3.6% indicated to no extent. In addition, a total of 50.0% of the customers thought that star-rated hotels along the Kenyan Coast purchase recyclable products to a great extent and very great extent, 16.6% were neutral, 21.3% indicated to some extent, and 12.1% indicated to no extent.

A one-sample t-test was used to assess the significance of the Likert scale responses at 0.05 level of significance at an indifference point of 3. The mean was also used to decide whether the green practices were negatively adopted or positively adopted, with those whose mean exceeded 3 being positively adopted while those below 3 were negatively adopted.

Those whose p-values were not significant were assumed not to have been under implementation or scantily adopted in star-rated hotels along the Kenyan Coast. The one-sample t-test findings were as shown in Table 4.7. Despite having a mean of 3.11 (above the indifference of 3), renewable energy options had a p-value=0.086>0.05, implying that the customer's opinion on star-rated hotels adopting renewable energy programs is insignificant.

Table 4. 7: Significant Current Green Practices Adopted by Hotels as Reported by Customers

As part of going green, the hotel…	Mean	*t*	*df*	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Installs green energy programs, e.g. the Use of wind or solar power	3.11	1.72	337	.086	.10947	-.0154	.2343
Uses energy-efficient equipment and lighting	3.67	10.07	337	.000	.67160	.5404	.8028
Composts organic kitchen waste	2.72	-3.89	337	.000	-.27811	-.4187	-.1375
Installs occupancy sensors or key card control systems in guest rooms to reduce in-room energy consumption	2.45	-6.56	337	.000	-.54438	-.7076	-.3812
Implements a linen and towel reuse program	3.33	3.89	337	.000	.33432	.1653	.5034
Installs water-efficient devices and equipment, e.g. Low water volume toilets, showerheads, water-efficient laundry equipment or dishwashers	3.62	8.59	337	.000	.62130	.4791	.7635
Uses environmentally friendly cleaners or detergents	3.77	12.97	337	.000	.77219	.6551	.8893
Involves the key stakeholders in green practices decision making	3.64	10.35	337	.000	.63609	.5152	.7570
Implements recycling programs	3.15	2.40	337	.017	.15385	.0278	.2799
Uses refillable amenity dispensers	3.48	7.47	337	.000	.47929	.3532	.6054
Serves proper food portions to reduce food waste	3.81	11.83	337	.000	.80769	.6735	.9419
Purchases recyclable products	3.24	3.35	337	.001	.23964	.0988	.3804

Note. df = degrees of freedom. *t* = t-Test. Likert-scale: 5 = very great extent, 4 = great extent, 3 = neutral, 2 = some extent, 1 = no extent. Scale mean = 3.0

According to customers, the responses on current green practices imply that most green practices have significantly been adopted; however, the use of renewable energy has not been significantly adopted among star-rated hotels along the Kenyan Coast. These findings are supported by Upadhyay et al. (2016). They indicated that hotel managers might not recognize that utility costs saved by investing in new and efficient energy appliances or systems will repay the initial cost of installation and contribute to enhanced performance.

Currently, some hotels are installing solar panels to light guest rooms since most solar energy is used in powering solar water pumps for the boreholes, water heating, lighting gardens and pathways (*see Plate 4.2*). Indeed, hotel manager 'A4' had this to say:

"Installation of solar panels for use in the guest rooms is part of the solar project we have already started. We intend to implement it in phases, starting with some rooms and then extending to others due to the high installation cost. Currently, we use Light Emitting Diodes (LEDs), which have a high capacity for energy saving."

The study observed that waste policy and audit record files existed in most hotels that were members of green certification schemes. Waste bins were also labelled in these hotels, indicating that waste was segregated at the source. The waste/ litter bins were found in rooms and in the hotels' compounds. Trash baskets were also spotted along the beach in some of the hotels (*see Plate 4.2*). Concerning waste management and minimization, hotel manager 'A4' said the following;

"According to the green certification scheme, we must provide guidelines to suppliers recommending the use of reduced packaging to minimize waste. We also weigh both the ingredients issued and waste generated per day, compared to the hotel's occupancy levels. Preparation procedures and equipment are also inspected regularly."

The study further noted that green or sustainable designs are another initiative that has gained popularity as part of green facilities. It was observed that many hotels practice green building design, evident from the room exteriors where most of them used local materials *"makuti"* for roofing. Most of the buildings were also painted white on the exterior surfaces to avoid absorption and retention of heat (*see Plate 4.2*).

Garden/Pathway Solar Lamp | Trash Baskets at the Beach

Solar Water Heating System And Boiler | "Makuti" Thatched Guest Rooms

Plate 4. 2: A collage showing some adopted green practices

4.6 Role of Stakeholder Engagement in the Adoption of Green Practices

The second objective was to assess stakeholder engagement's role in adopting green practices by star-rated hotels along the Kenyan Coast. The study first required the line managers to list three key stakeholders in their hotel. The top five stakeholder categories for the star-rated hotels include hotel associations, customers and government regulatory agencies (32.1%), customers, government regulatory agencies and employees (17.9%). Additional stakeholders consist of hotel associations, customers and employees (15.1%), hotel associations, local community and employees (9.4%) and customers, NGOs and employees (9.4%), as shown in Table 4.8.

Table 4. 8: Key Stakeholders Engaged in Adoption of Green Practices as Reported by Hotel Line Managers

Stakeholders	Frequency	%
Hotel associations, local community, employees	10	9.4
Hotel associations, customers, government regulatory agencies	34	32.1
Hotel associations, customers, employees	16	15.1
Customers, government regulatory agencies, employees	19	17.9
Customers, NGOs, employees	10	9.4

The research study noted that most of the star-rated hotels involved internal and external stakeholders. Managers whose hotels involve internal and external stakeholders include hotel associations, staff, guests, county government, environmental agencies, green certification associations, local communities, hotel/tourist associations, and suppliers. They reported that staff, guests, local community, schools, hotel associations, green certification associations, county government, beach operators, suppliers, environmental agents and Kenya Wildlife Service (KWS) are involved in green strategies. However, guests participate voluntarily.

The line managers were presented with Likert scale statements regarding the extent of stakeholder engagement, and the findings were as disclosed in Table 4.9. As indicated, 39.6% and 21.7% of the line managers believed that key stakeholders for the star-rated hotels conveyed their perspectives about solving the hotels' green practices problems successfully to a very great extent and to a great extent. Moreover, 27.4% indicated to some extent, and 11.3% were neutral. In addition, 37.7% and 30.2% of the line managers thought that stakeholders for the star-rated hotels provided new ideas for improving green practices to a very great extent and to a great extent, respectively. Furthermore, 17.9% indicated to some extent, 10.4% were neutral, and 3.8% indicated that stakeholders provided ideas to no extent.

Table 4. 9: Extent of Stakeholder Engagement in Green Practices Adoption as Reported by Hotel Line Managers

Our key stakeholders… Scale:	1 *n*(%)	2 *n*(%)	3 *n*(%)	4 *n*(%)	5 *n*(%)
Convey their perspectives about how to solve the hotel green practices problems successfully	0 (0.0%)	29 (27.4%)	12 (11.3%)	23 (21.7%)	42 (39.6%)
Provide new ideas for improving green practices	4 (3.8%)	19 (17.9%)	11 (10.4%)	32 (30.2%)	40 (37.7%)
Participate in defining green practices performance indicators a hotel should use and report on	0 (0.0%)	23 (21.7%)	13 (12.3%)	30 (28.3%)	40 (37.7%)
Participate in identifying green policies, objectives and programs	8 (7.5%)	19 (17.9%)	26 (24.5%)	10 (9.4%)	43 (40.6%)

Note. Likert-scale: 5 = very great extent, 4 = great extent, 3 = neutral, 2 = some extent, 1 = no extent.

According to 37.7% and 28.3% of the line managers, stakeholders for star-rated hotels along the Kenyan Coast participate in defining green practices performance indicators to a very great extent and to a great extent, respectively. However, 21.7% indicated to some extent, while 12.3% were neutral.

Lastly, 40.6% of the line managers indicated that stakeholders participate in identifying green practices, objectives and programs to a very large extent; 24.5% were neutral. On the other hand, 17.9% indicated to some extent, 9.4% indicated to a great extent, and 7.5% indicated that stakeholders participated to no extent.

All the Likert scale responses were significant (p-values were less than 0.05) and with means greater than 3 (neutrality), as shown in Table 4.10 (one-sample t-test results). These findings imply that stakeholder participation in green practices among star-rated hotels along the Kenyan Coast is significant.

Table 4. 10: Significance of Stakeholder Engagement in Green Practices Adoption as Reported by Hotel Line managers

	Mean	*t*	*df*	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Our key stakeholders convey their perspectives about how to solve the hotels' green practices problems successfully	3.73	6.088	105	.000	.73585	.4962	.9755
Our key stakeholders provide new ideas for improving green practices	3.80	6.712	105	.000	.80189	.5650	1.0388
Our key stakeholders participate in defining green practices performance indicators a hotel should use and report on	3.82	7.277	105	.000	.82075	.5971	1.0444
Our key stakeholders participate in identifying green policies, objectives and programs	3.57	4.316	105	.000	.57547	.3111	.8399

Note. df = degrees of freedom. t = t-Test. Likert-scale: 5 = very great extent, 4 = great extent, 3 = neutral, 2 = some extent, 1 = no extent. Scale mean = 3.00

The significant responses on stakeholder engagement, according to line managers, therefore, imply that most of the star-rated hotels along the Kenyan Coast involve internal and external stakeholders in formulating green strategies and subsequent adoption of green practices. This finding supports that of Park and Kim (2014), who posited that the demands and concerns of stakeholders were more important than any other considerations in the adoption of pronounced green practices. Further, the findings are consistent with Lo (2013), who noted that promoting collaborative relationships with key stakeholders helps meet their demands and achieve long-term success.

The study observed that most hotels with membership in green certification schemes constituted various committees and sub-committees. They include the environmental committee, health and safety committee, human resources committee, child protection sub-committee, beach operators subcommittee, energy management subcommittee,

and water and waste management subcommittees. These give rise to related policies which guide the actions of each committee/subcommittee. In addition, meetings and workshops were commonly used to engage both internal and external stakeholders.

For hotel organizations to continuously learn and improve meaningful stakeholder relations, it is important to consider the opinions of different stakeholders. This was done using different stakeholder forums, which various green initiatives committees organized. In addition, green capacity-building seminars, workshops, beach clean-ups, and tree-planting activities were organized. The hotel managers further indicated additional green actions, including giving supplier guidelines to improve product quality and minimize waste by avoiding excessive packaging. The turtle conservation biodiversity program is also enhanced through conservation talks to in-house guests, beach operators, boat owners and fishermen, aiming to improve marine/aquatic life and reduce pollution.

The study further noted that county government, environmental associations, green certification schemes and tourist association representatives were invited by hotel managers to give opinions concerning green practices during meetings, seminars and training workshops. Expert 'E3' reported that;

> *"Hotels that subscribe to the green association as members not only benefit from green certification ratings and awards but also stand a chance of co-opting experts and specialists in different green programs such as energy management, water conservation and waste minimization through the scheme."*

Customers, key stakeholders in the hotel industry, were also required to rate their engagement in green practices, and the results are reported in Table 4.11.

Table 4. 11: Extent of Stakeholder Engagement in Adoption of Green Practices as Reported by Customers

As a stakeholder I… Scale	1 *n*(%)	2 *n*(%)	3 *n*(%)	4 *n*(%)	5 *n*(%)
Convey perspectives about how to solve the hotel green practices problems successfully	10 (3.0%)	56 (16.6%)	80 (23.7%)	110 (32.5%)	82 (24.3%)
Provide new ideas for improving green practices	18 (5.3%)	82 (24.3%)	43 (12.7%)	80 (23.7%)	115 (34.0%)
Participate in defining green practices performance indicators a hotel should use and report on	12 (3.6%)	78 (23.1%)	88 (26.0%)	95 (28.1%)	65 (19.2%)
Participate in identifying green policies, objectives and programs	32 (9.5%)	75 (22.2%)	63 (18.6%)	94 (27.8%)	74 (21.9%)

Note. Likert-scale: 5 = very great extent, 4 = great extent, 3 = neutral, 2 = some extent, 1 = no extent.

A total of 56.8% of customers conveyed perspectives about how to solve the hotels' green problems successfully to a great extent, and to a very great extent, 23.7% were neutral, 16.6% to some extent and 3.0% to no extent. As key stakeholders, a total of 57.7% of the customers provided new ideas for improving green practices to a very great extent and to a great extent, 24.3% to some extent, 12.7% were neutral, and 5.3% to no extent.

Table 4.11 also shows that customers take part in defining green practices performance indicators a hotel should use and report on green practices to a great extent (28.1%), neutral (26.0%), to some extent (23.1%), to a very great extent (19.2%) and no extent (3.6%) respectively. This implies the need for an integrated system for monitoring and reporting green practices in star-rated hotels along the Kenyan Coast.

Lastly, customers stated that they participate in identifying green policies, objectives and programs to a great extent (27.8%), to some extent (22.2%), to a very great extent (21.9%), neutral (18.6%) and to no extent (9.5%) respectively. All the Likert scale responses by the customers are significant (p-values were less than 0.05), and the means are all greater than 3 (neutrality), as shown in Table 4.12.

Table 4. 12: Significance of Stakeholder Engagement in Adoption of Green Practices as Reported by Customers

As a stakeholder I…	Mean	*t*	*df*	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Convey perspectives about how to solve the hotel green practices problems successfully	3.58	9.670	337	.000	.58580	.4666	.7050
Provide new ideas for improving green practices	3.57	7.927	337	.000	.56805	.4271	.7090
Take part in defining green practices performance indicators a hotel should use and report on	3.36	5.880	337	.000	.36391	.2422	.4856
Take part in identifying green policies, objectives and programs	3.30	4.340	337	.000	.30473	.1666	.4429

Note. df = degrees of freedom. *t* = t-Test. Likert-scale: 5 = very great extent, 4 = great extent, 3 = neutral, 2 = some extent, 1 = no extent. Scale mean = 3.00

These findings also imply that customer engagement in green practices as a key stakeholder is relatively significant. The findings are consistent with Chen (2019), who indicated that guests are key stakeholders since greening affects most hotel operations, forming the root of service delivery in the hospitality industry. Therefore, this implies that it is important to engage customers in environmental education and training forums to understand their attitudes, interests, and perspectives concerning formulating, monitoring and reporting green strategies.

The study observed that guests were most commonly involved as external stakeholders apart from neighbouring hotels/ local communities, county government, hotel associations, green certification associations, and beach operators. It was further observed that stickers, posters and notices were commonly used to solicit guest participation in green activities both in guest rooms and public areas. Such notices include the ones found along beaches (*see Plate 4.2*). In addition, trash baskets were

placed next to the notices to solicit waste management among the guests and beach operators by avoiding littering the beachfront.

Further, it was noted that there were several past experiences where guests were among the external stakeholders who collaborated in enhancing green initiatives planning and adoption, as narrated by hotel managers ‘A3’ and ‘A4’, who gave the following highlights;

> *“[…] in the recent past, we organized a workshop where we had capacity building sessions to sensitize beach operators, boat owners and patrons/guests on environmental concerns at the beach.”*

> *“[…] training sessions were organized to train beach operators how to handle beach visitors and raise awareness on tourism's benefits. We have also mounted stickers in the rooms to encourage linen reuse and water and energy management among the guests.”*

4.6.1 Multiple Linear Regression Analysis

The Multiple Linear Regression (MLR) model was used to assess the relationship between the adoption of green practices as the dependent variable and stakeholder engagement and perceived benefits/costs as the independent variables.

4.6.2 Diagnostic Tests

Before fitting the regression line, diagnostic tests were conducted to test whether the assumptions of MLR were fulfilled. Multiple linear regression assumptions are linearity, normality, multicollinearity and homoscedasticity.

4.6.2.1 Linearity

Linearity assumes that the independent variables have a linear relationship with the dependent variable (Aguinis, 2004). The ANOVA deviation from the linearity test was used to test whether the linearity assumption was fulfilled. Based on this test, a linear relationship exists between two variables when the p-value is non-significant (the p-value>0.05 in this case). The ANOVA deviations from linearity test results were as shown in Table 4.13. From the findings, all the p-values were greater than 0.05 (significance level), therefore confirming no significant deviation from linearity. The relationship between the dependent and independent variables is, therefore, linear.

Table 4. 13: Test for Linearity

	F	P	Deviation from linearity
Stakeholder engagement*Green Practices	.680	.412	Not significant
Perceived Benefits *Green Practices	.364	.696	Not significant

4.6.2.2 Normality

For valid inferences to be made from the regression model, the residuals of the regression should be normally distributed (Aguinis, 2004). Residuals imply the error terms, the difference between actual and predicted values. A normal probability plot (P-P plot) was used to determine if the residuals were normally distributed. The visual inspection of the normal P-P plot illustrated in Figure 4.1 indicates no drastic deviations from the perceived horizontal line. Therefore, the residuals were normally distributed.

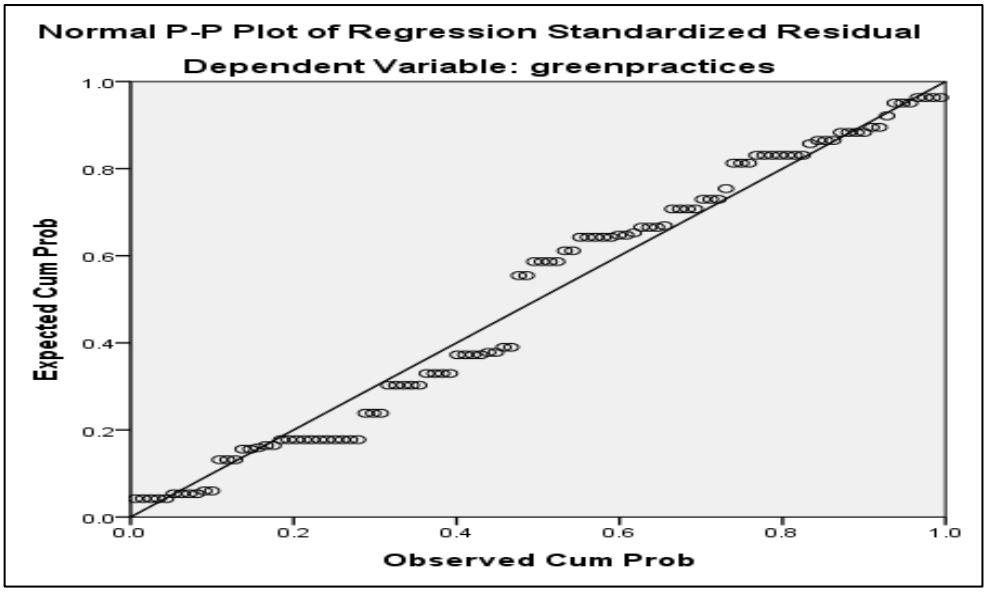

Figure 4. 1. Test for Normality

4.6.2.3 Multicollinearity

Multicollinearity occurs when the independent variables are highly correlated (Aguinis, 2004). Multicollinearity is a problem if the regression model does not accurately relate the dependent variable with the correct independent variables, resulting in incorrect muddled results and inferences. Variance inflation factor (VIF) was used in testing for multicollinearity. For multicollinearity not to be a problem, the VIF values should be below 10; VIF values below 5 are the best. All the VIF values, as shown in Table 4.14, are less than 5. Therefore, multicollinearity was not a problem.

Table 4. 14: Test for Multicollinearity

Model		Collinearity Diagnostics	
		Tolerance	VIF
1	(Constant)		
	Stakeholders engagement	.946	1.057
	Perceived benefits	.946	1.057

a. Dependent Variable: green practices

4.6.2.4 Homoscedasticity

Homoscedasticity occurs when the residuals are distributed equally. The Homoscedasticity assumption is violated when the residuals bunch together at specific values or when the residuals are spread far apart (Aguinis, 2004). A scatter plot

between standardized predicted values and standardized residuals is used. Homoscedasticity is obeyed if the plots are equally distributed below and above the zero (0) mark. The plots are equally distributed from the scatter plot in Figure 4.2, so the homoscedasticity assumption was not violated.

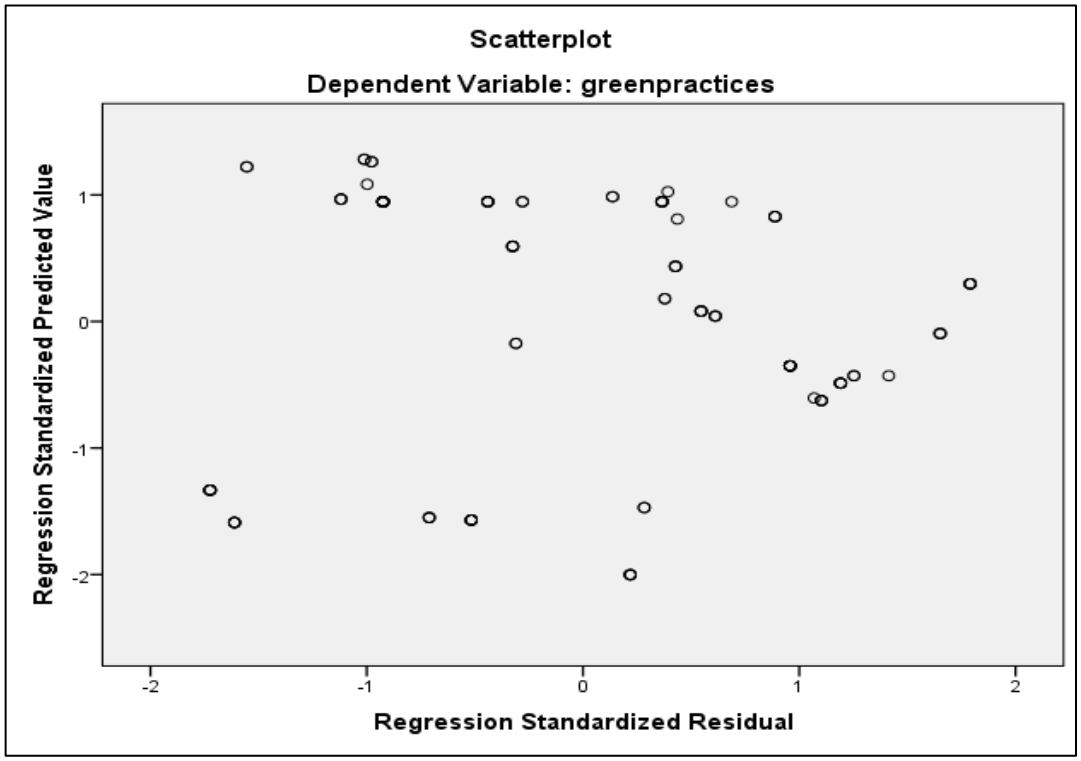

Figure 4. 2: Homoscedasticity Assumption

4.6.3 Model Summary

The regression model summary is shown in Table 4.15. The value of R-squared is 0.747, implying that 74.7% of green practices adoption is explained by stakeholder engagement and perceived benefits. In addition, the value of R-Square and adjusted R-Square were very close, indicating that the model is well-defined.

Table 4. 15: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.864[a]	.747	.742	.51698

a. Predictors: (Constant), perceived benefits, stakeholders

b. Dependent Variable: green practices

4.6.3.1 ANOVA Results

The ANOVA results were as shown in Table 4.16. The ANOVA table's p-value<0.0001 implies that the overall model is significant.

Table 4. 16: ANOVA Results

Model		Sum of Squares	*df*	Mean Square	F	Sig.
1	Regression	81.108	2	40.554	151.736	.000[b]
	Residual	27.528	103	.267		
	Total	108.636	105			

a. Dependent Variable: green practices

b. Predictors: (Constant), perceived benefits, stakeholders

4.6.3.2 Regression Coefficients

The regression coefficients are shown in Table 4.17.

Table 4. 17: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.890	.406		4.660	.000
	Stakeholders engagement	.760	.044	.885	17.363	.000
	Perceived benefits	.242	.091	.135	2.653	.009

a. Dependent Variable: green practices; * significant at p≤0.05

The regression coefficients table shows that all the coefficients are significant since all the p-values<0.05. This means that stakeholder engagement has a significant positive influence on the adoption of green practices, while perceived benefits also have a significant positive influence on the adoption of green practices by star-rated hotels.

The model outcome was stated as follows; -

Green practices = $\beta_0 + \beta_1$ Stakeholder engagement + β_2 Stakeholder perceived benefits + β_3 Environmental leadership + ε.

Therefore: -

Green practices = 1.890 + 0.760 stakeholder engagement + 0.242 perceived benefits

Since the beta value for stakeholder engagement was positive, there was a significant positive relationship between the predictor (β_1 Stakeholder engagement) and the outcome (Green Practices). On the other hand, there was a significant positive relationship between the predictor (β_2 Stakeholder perceived benefits) and the outcome (Green Practices).

The beta β-value indicates that a standard deviation increase in stakeholder engagement will lead to a .760 standard deviation increase in green practices, holding other factors constant. Similarly, a standard deviation increase in perceived benefits will lead to a 0.242 increase in green practices holding other variables constant. If stakeholder engagement and perceived benefits were rated at the mean, green practices would be constant ($\beta_0 = 1.890$).

On the influence of stakeholder engagement on the adoption of sustainable practices among star-rated hotels in Coastal Kenya, the stakeholder theory assumes that promoting partnerships with key stakeholders helps meet their demands and subsequently achieve long-term success in terms of environmental awareness and adoption of green practices. The study concurred with Park and Kim (2014), who found that, in adopting pronounced green programs, the demands and concerns of stakeholders were more important than other considerations.

The study findings were also in line with Dolnicar et al. (2019), who found that it is important for hotel managers to educate guests on a hospitality facility's green initiatives and how they can contribute to them during their stay. Further, the findings are consistent with Jia et al. (2018), who found that the organization's human resource management supports the hotel's acquisition and development of green programs and sustainable green employee job behaviours.

4.6.4 Hypothesis Test

Using research hypotheses, the study sought to test the relationship between stakeholder engagement and adoption of green practices by star-rated hotels along the Kenyan Coast. The first null hypothesis [H_{01}] and alternative hypothesis [H_{a1}] were stated as follows: -

H_{01}: - $\beta_1 = 0$ (There is no significant relationship between stakeholder engagement and adoption of green practices by star-rated hotels along the Kenyan Coast).

H_{a1}: - $\beta_1 \neq 0$ (There is a significant relationship between stakeholder engagement and the adoption of green practices by star-rated hotels along the Kenyan Coast).

The regression model with stakeholders' engagement and perceived benefits was statistically significant (F (2,103) =151.736, p<.000), it could predict the adoption of green practices by the hotels. The regression model explained 74.7% of the variation in the adoption of green practices by the hotels in this study (R=.864, R^2=.747). In addition, the effect of stakeholder engagement (β =.760) on the adoption of green practices was statistically significant (p<.001 and p<.05, respectively).

The t-statistic and p-value for stakeholder engagement was t=17.363 p-value=0.000≤0.05. Therefore, based on these results, the study's null hypothesis was rejected, and the alternative hypothesis was accepted. This indicated that "stakeholder engagement has a significant positive influence on the adoption of green practices by star-rated hotels along the Kenyan Coast."

4.7 Effect of Perceived Benefits on Adoption of Green Practices

The third objective of the study was to evaluate the effect of perceived current and potential benefits on the adoption of green practices among star-rated hotels along the Kenyan Coast. The line managers were presented with several Likert scale statements

regarding the perceived benefits of adopting green practices and their effect on implementing them. They were required to indicate their level of agreement or disagreement. The findings were as reported in Table 4.18.

Table 4. 18: Perceived Benefits of Green Practices

To our hotel, application of green practices… *Scale*:	1 *n*(%)	2 *n*(%)	3 *n*(%)	4 *n*(%)	5 *n*(%)
Contributes to reducing operational costs	0 (0.0%)	0 (0.0%)	13 (12.3%)	19 (17.9%)	74 (69.8%)
Contributes to influencing service quality	0 (0.0%)	0 (0.0%)	9 (8.5%)	43 (40.6%)	54 (50.9%)
Provides access to new markets	0 (0.0%)	0 (0.0%)	15 (14.2%)	26 (24.5%)	65 (61.3%)
Improves relationships with local communities	0 (0.0%)	0 (0.0%)	8 (7.5%)	25 (23.6%)	73 (68.9%)
Contributes to reducing negative impacts on the environment	0 (0.0%)	0 (0.0%)	7 (6.6%)	35 (33.0%)	64 (60.4%)
Improves public relations	0 (0.0%)	0 (0.0%)	11 (10.4%)	37 (34.9%)	58 (54.7%)
Functions as a marketing asset	0 (0.0%)	0 (0.0%)	11 (10.4%)	51 (48.1%)	44 (41.5%)
Contributes to increasing market share	0 (0.0%)	0 (0.0%)	17 (16.0%)	37 (34.9%)	52 (49.1%)
Makes our hotel more profitable	0 (0.0%)	0 (0.0%)	8 (7.5%)	24 (22.6%)	74 (69.8%)
Contributes to sustaining the environment	0 (0.0%)	0 (0.0%)	13 (12.3%)	19 (17.9%)	74 (69.8%)
Enhances employee motivation and satisfaction	0 (0.0%)	0 (0.0%)	12 (11.3%)	44 (41.5%)	50 (47.2%)
Differentiates services and products	0 (0.0%)	0 (0.0%)	28 (26.4%)	30 (28.3%)	48 (45.3%)
Improves our hotel image	0 (0.0%)	0 (0.0%)	11 (10.4%)	34 (32.1%)	61 (57.5%)
Contributes to a safe and healthy work environment for employees	0 (0.0%)	0 (0.0%)	13 (12.3%)	25 (23.6%)	68 (64.2%)

Note. Likert-scale: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

According to the findings, 69.8%, 17.9% and 12.3% of the line managers strongly agreed, agreed and were neutral, respectively, that the adoption of green practices contributes to reducing operational costs. Further, 50.9% of the line managers strongly agreed, 40.6% agreed, and 8.5% were neutral, respectively, that adopting green practices influences service quality. Indeed the hotel managers indicated that linen reuse through towel talk and stickers in rooms contributes to reducing water consumption, wastewater generation and energy used in laundry.

The findings also showed that 68.9% of the line managers strongly agreed, 23.6% agreed, and 7.5% were neutral, respectively, that the adoption of green practices improves the relationship with local communities. Concerning the benefits of green practices to the community, hotel manager 'A3' had this to report;

> *"[…] we purify water for use internally by the hotel but also have a supply point where the local community refill their water dispensers at a cheaper price."*

Green practices also improved public relations," with 54.7% of the line managers strongly agreeing, 34.9% agreeing, and 10.4% neutral, respectively. On the other hand, 48.1% of the line managers agreed that adopting green practices functions as a marketing asset, 41.5% strongly agreed, and 10.4% were neutral. Similarly, 61.3% of the line managers strongly agreed, 24.5% agreed, and 14.2% were neutral, respectively, that applying green practices provides access to new markets.

Most hotel managers interviewed indicated that despite the huge initial costs, benchmarking activities before adoption, and compliance needs to legal and regulatory requirements. Once adopted, green practices can act as a marketing asset. Hotel manager 'A2' indicated the following;

> *"[…] as a member of one reputable international certification scheme, our hotel uses their logo for green marketing purposes. The certification scheme's gold award also helps create a positive image for our customers. Internally the scheme has also assisted in promoting sustainability culture."*

The benefit that "Green practices contribute to reducing negative impacts on the environment" had 60.4%, 33.0%, and 6.6% of the line managers strongly agreed, agreed and were neutral, respectively. Another benefit of adopting green practices is that it makes hotels more profitable, as disclosed by 69.8% of the line managers who

strongly agreed, 22.6% agreed, and 7.5% were neutral. The majority of the line managers, as shown by 69.8%, strongly agreed that adopting green practices contributes to sustaining the environment, 17.9% agreed, and 12.3% were neutral. Concerning the environmental protection function of green practices, hotel managers emphasized that the protection of the beach and the entire marine life has a trickledown effect which translates to increased patronage and subsequent economic returns to beach operators.

Adopting green practices enhances employee motivation and satisfaction, as shown by 47.2% and 41.5% of the line managers who strongly agreed and agreed, while 11.3% were neutral. In addition, 73.6% of the line managers strongly agree that adopting green practices differentiates services and products; 26.4% were neutral. Furthermore, 57.5% of the line managers strongly agree that adopting green practices improves the hotel's image, 32.1% agreed, and 10.4% were neutral. Finally, adopting green practices enhances the safety and health of the work environment for employees, as demonstrated by 64.2% of the employees who strongly agreed, 23.6% agreed, and 12.3% were neutral.

4.7.1 Perceived Costs/Challenges of Green Practices

Some commonly cited challenges by the hotel managers included the high costs of changing from an old system to a new one, huge installation costs, lack of equity in prioritizing stakeholder opinions and poor environmental leadership. The study noted that more than 50% (n =17) of the hotels had not installed occupancy sensors or key card control systems. Concerning energy management, hotel managers ‘A3’ and ‘A4’ indicated the following;

"[...] we are in the process of installing key card control system; however, this requires more serious financial consideration since the initial cost is a bit higher."

"[...] installation of solar panels for use in the rooms is part of the solar project we have already started. We intend to implement in phases where we can start with some rooms and then extend to others due to the high installation cost."

While using solar energy is important to the hotel and the environment at large, its use by the hotels is minimal and mostly confined to water heating and garden/compound lighting. The study observed that hotels with solar water heating systems had an adjacent electrical water boiler for use when solar energy fails (*see Plate 4.2*). In addition, the qualitative results indicated high maintenance costs were associated with solar water heating systems, which many hotels were not ready to offset. Indeed, hotel manager 'A3' had this to say:

"One major challenge of solar water heating systems is the high maintenance cost due to clogging of inlet and outlet by salt deposits due to high water salinity. This necessitates using a standby boiler as an alternative in case of solar system failure."

The study further observed that noncompliance with legal and regulatory requirements from the environmental agencies also posed a danger to the environment. If released into the ocean, untreated sewage and waste will jeopardize the aquatic and marine ecosystems. Experts noted that the perceived dangers of untreated sewage and wastewater from beach hotels possibly being discharged into the ocean has resulted in the issuance of stringent environmental agency regulations requiring strict adherence.

Failure of a hotel to comply with the regulations may attract a penalty, withdrawal of permit, and issuing of a court order from the enforcement authorities.

The study observed that food waste management is a major challenge since it involves concerted efforts to control food portions and minimise food wastage during storage, preparation and service. In addition, the use of plastic bottles, polythene packaging and dust bin liners was also a major problem. In terms of waste management, it was noted that most four and five-star hotels no longer used polythene bin liners and had partially introduced the use of glass water bottles in order to get rid of plastic bottles. However, according to most hotel managers, this program was financially demanding, and the implementation required more time.

The study observed that further to waste management challenges occasioned by the delicate location of the hotels and limited waste disposal sites, there were other strategic challenges. They include a lack of capacity and an integrated framework to monitor, audit and report hotel green practices. In addition, the lack of funding for green practices is also a major problem.

In addition, it was observed that hotel managers capable of engaging internal and external stakeholders in decision making and subsequent development of collaborative relationships achieved more progress and better performance in adopting green practices. It was, however, a major challenge to communicate this performance to internal and external stakeholders. Experts E1' and 'E2' noted the following;

> *"There is an urgent need to develop comprehensive guidelines to help star-rated hotels monitor, audit and report green practices. This also gives rise to the need to develop an institution to build capacity for the adoption of green*

practices through training, auditing and funding of these practices in star-rated hotels."

"Hotel managers and related associations should also develop standards to provide guidelines on monitoring, recording and reporting green practices performance both in financial and non-financial terms to internal and external stakeholders."

In terms of resource allocation to facilitate stakeholder engagement activities, it was found that hotels that engage both internal and external stakeholders set aside funds for membership registration and renewal of green certification, environmental management compliance permits, county government permits and licences for curios and beach operators. Funds were also required for refreshments and transport during beach clean-up exercises and meetings/workshops.

The study further observed numerous stakeholders in the hospitality industry, and the major challenge for hotels was determining the key stakeholders to bring on board. This calls for an integrated framework and sufficient funds to achieve meaningful stakeholder engagement. According to the experts, hotel managers should reach out for external green climate funds and donations to supplement their budgets for green activities and programs.

Representatives and experts from the county government and green certification association also indicated that it is important for hotel managers not only to set aside and source green climate funds but also dedicate time to analyse tourism supply and value chain in determining the key stakeholders to bring on board. This will make the stakeholder engagement process more meaningful.

4.7.2 Multiple Linear Regression Model Summary

The regression model summary was as shown in Table 4.19. The value of R-squared is 0.747, implying that 74.7% of green practices adoption is explained by stakeholder engagement and perceived benefits/costs. In addition, the value of R-Square and adjusted R-Square is very close, indicating that the model is well-defined.

Table 4. 19: Value of R-Square and Adjusted R-Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.864[a]	.747	.742	.51698

a. Predictors: (Constant), perceived benefits, stakeholders
b. Dependent Variable: green practices

4.7.2.1 ANOVA Results

The ANOVA results were as shown in Table 4.20. The ANOVA table's p-value<0.0001 implies that the overall model is significant.

Table 4. 20: ANOVA Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	81.108	2	40.554	151.736	.000[b]
	Residual	27.528	103	.267		
	Total	108.636	105			

a. Dependent Variable: green practices
b. Predictors: (Constant), perceived benefits, stakeholders

4.7.2.2 Regression Coefficients

The regression coefficients are shown in Table 4.21.

Table 4. 21: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.890	.406		4.660	.000
	Stakeholders engagement	.760	.044	.885	17.363	.000
	Perceived benefits	.242	.091	.135	2.653	.009

a. Dependent Variable: green practices

From the regression coefficients in Table 4.21, all the regression coefficients are significant since all the p-values<0.05. This means perceived benefits have a significant positive influence on the adoption of green practices.

The model outcome was stated as follows; -

Green practices = β_0 + β_1 Stakeholder engagement + β_2 Stakeholder perceived benefits + β_3 Environmental leadership + ε.

Therefore: -

Green practices = 1.890 + 0.760 stakeholder engagement + 0.242 perceived benefits

The beta value for stakeholder perceived benefits was positive; thus implies a significant positive relationship between the predictor (β_2 Stakeholder perceived benefits) and the outcome (Green Practices).

The beta β-value, therefore, indicates that a standard deviation increase in perceived benefits will lead to a 0.242 standard deviation increase in the adoption of green practices, holding constant other predictors in the model. If stakeholder engagement and perceived benefits were rated at the mean, then the adoption of green practices would be constant (β_0 = 1.890).

4.7.3 Hypothesis Test

Further, the research study tested the relationship between stakeholders' perceived benefits/costs and the adoption of green practices in star-rated hotels along the Kenyan Coast. Secondly, the null hypothesis [H_{02}] and alternative hypothesis [H_{a2}] were stated as follows: -

H_{02}: - $\beta_2 = 0$ (There is no significant relationship between stakeholder perceived benefits and adoption of green practices among star-rated hotels along the Kenyan Coast).

H_{a2}: - $\beta_2 \neq 0$ (The relationship between stakeholder perceived benefits and adoption of green practices among star-rated hotels is not significant).

The regression model with stakeholders' engagement and perceived benefits was statistically significant (F (2,103) =151.736, p<.000), it could predict the adoption of

green practices by the hotels. The regression model explained 74.7% of the variation in the adoption of green practices by the hotels in this study (R=.864, R^2=.747). Furthermore, the effect of perceived benefits/ costs (β =.242) on the adoption of green practices was statistically significant (p<.001 and p<.05, respectively).

The t-statistic and p-value for stakeholder perceived benefits/costs was t= (2.653) p-value=0.000≤0.05. Therefore, based on these results, the study's null hypothesis was rejected, and the alternative hypothesis was accepted. This indicated that "stakeholder perceived benefits have a significant influence on the adoption of green practices among star-rated hotels along the Kenyan Coast."

Similar findings have been reported by Adebitan (2019), who found that perceived benefits partially mediate hotels' adoption of sustainable waste management in her survey of sustainable waste management. It is clear that certain factors, such as adopting capital-intensive green practices act as obstacles that influence hotels adopting green initiatives, as noted in this study. This observation is consistent with Rahman et al. (2015), who inferred that hospitality facilities faced critical barriers making it difficult or impossible to incorporate green practices into their daily operations.

The study findings also aligned with those of Styles et al. (2015). They noted possible barriers to adopting green practices, including a shortage of technical competencies, high investment costs in green technology, inadequate environmental policies, insufficient environmental awareness creation and lack of environmental laws enforcement.

4.8 Moderating Effect of Environmental Leadership

The fourth objective of this study was to determine the moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices among star-rated hotels along the Kenyan Coast. The line managers were required to indicate their extent of providing environmental leadership in promoting the adoption of green practices among star-rated hotels along the Kenyan Coast. The findings were as reported in Table 4.22.

Table 4. 22: Moderating Effect of Environmental Leadership – Line Managers

As a manager I…	1	2	3	4	5
Scale:	*n*(%)	*n*(%)	*n*(%)	*n*(%)	*n*(%)
Am aware of key stakeholder demands related to green practices	0 (0.0%)	22 (20.8%)	9 (8.5%)	16 (15.1%)	59 (55.7%)
Consider the impact of green practices decisions on key stakeholders	9 (8.5%)	18 (17.0%)	10 (9.4%)	16 (15.1%)	53 (50.0%)
Involve the key stakeholders in green practices decision making	13 (12.3%)	19 (17.9%)	14 (13.2%)	33 (31.1%)	27 (25.5%)
Allow employees to participate and have an influence on decision-making related to green practices	4 (3.8%)	26 (24.5%)	12 (11.3%)	35 (33.0%)	29 (27.4%)
Seek advice on green practices implementation from employees	4 (3.8%)	30 (28.3%)	11 (10.4%)	37 (34.9%)	24 (22.6%)

Note. Likert-scale: 5 = very great extent, 4 = great extent, 3 = neutral, 2 = some extent, 1 = no extent.

From the findings as reported in Table 4.22, 55.7% of the line managers indicated that they were aware of key stakeholder demands related to green practices to a very great extent, 20.8% indicated that they were aware to some extent, 15.1% to a great extent and 8.5% were neutral. Moreover, 50.0% of the line managers indicated that they consider the impact of green practices decisions on key stakeholders to a very great extent, 17.0% indicated that they consider to some extent, 15.1% to some great extent, 9.4% were neutral, and 8.5% considered to no extent.

Table 4.22 shows that 31.1% and 25.5% of the line managers involve key stakeholders in green practices decision-making to a great extent and very great extent, respectively, 17.9% involved them to some extent, 13.2% were neutral, and 12.3% involved them

to no extent. It was also noted that 33.0% and 27.4% of the line managers allow employees to participate and have an influence on decision-making related to green practices to a great extent and a very great extent, respectively, 24.5% allowed them to some extent, 11.3% were neutral, and 3.8% allowed them to no extent.

The results also show that line managers seek advice on green practices adoption from employees to a great extent (34.9%), to some extent (28.3%), to a very great extent (22.6%), were neutral (10.4%) and to no extent (3.8%) respectively. All the p-values for the Likert scale responses on environmental leadership were less than 0.05, with means greater than 3 (neutrality), as shown in Table 4.23. This implies that the responses were significant; therefore, environmental leadership had a significant moderating effect on the relationship between environmental commitment and adoption of green practices among star-rated hotels along the Kenyan Coast.

Table 4. 23: Moderating Effect of Environmental Leadership (One-Sample t-test) – Line Managers

As a manager I…	Mean	*t*	*df*	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Am aware of key stakeholder demands related to green practices	4.06	8.935	105	.000	1.05660	.8221	1.2911
Consider the impact of green practices decisions on key stakeholders	3.81	5.875	105	.000	.81132	.5375	1.0851
Involve the key stakeholders in green practices decision making	3.40	2.991	105	.003	.39623	.1335	.6589
Allow employees to participate and have an influence on decision-making related to green practices	3.56	4.640	105	.000	.55660	.3187	.7945
Seek advice on green practices implementation from employees	3.44	3.720	105	.000	.44340	.2070	.6798

Note. df = degrees of freedom. *t* = t-Test. Likert-scale: 5 = very great extent, 4 = great extent, 3 = neutral, 2 = some extent, 1 = no extent. Scale mean = 3.00

A noteworthy observation made during the study is that most hotel managers had a good ability to engage and develop relatively more collaborative relationships with external stakeholders and experts. This was an indicator of good environmental values

and leadership. The environmental committees and subcommittees partner with Kenya Wildlife Service (KWS), Coastal Tourism Association (CTA), Ecotourism Kenya, Kenya Forestry Service and beach operators in conserving the beaches and the neighbouring forests. Hotel manager 'A3' had the following comment;

> *"[…] we not only collaborate with internal and external stakeholders to participate in the greening of hotel operations, but we also engage experts to advice on our turtle and butterfly conservation projects."*

The customers were also required to indicate the extent to which environmental leadership influenced their involvement in green practices, and the findings were reported in Table 4.24.

Table 4. 24: Moderating Effect of Environmental Leadership - Customers

The hotel… Scale:	1 *n*(%)	2 *n*(%)	3 *n*(%)	4 *n*(%)	5 *n*(%)
Is aware of key customers' demands related to green practices	9 (2.7%)	82 (24.3%)	30 (8.9%)	109 (32.2%)	108 (32.0%)
Considers the impact of green practices decisions on customers	18 (5.3%)	72 (21.3%)	56 (16.6%)	70 (20.7%)	122 (36.1%)
Involves customers in green practices decision making	17 (5.0%)	89 (26.3%)	69 (20.4%)	131 (38.8%)	32 (9.5%)
Allows customers to participate and have an influence on decision-making related to green practices	33 (9.8%)	107 (31.7%)	34 (10.1%)	135 (39.9%)	29 (8.6%)
Seeks advice on green practices from customers	28 (8.3%)	58 (17.2%)	60 (17.8%)	135 (39.9%)	57 (16.9%)

Note. Likert-scale: 5 = very great extent, 4 = great extent, 3 = neutral, 2 = some extent, 1 = no extent.

According to Table 4.24, 64.2% of the customers indicated that star-rated hotels along the Kenyan Coast were aware of key customers' demands related to green practices to a great extent and very great extent, 24.3%. In addition, 8.9% indicated neutral, while 2.7% indicated that the hotels were unaware. A combined 56.8% of the customers thought that star-rated hotels along the coast considered the impact of green practices decisions on customers to a very great extent, and to a great extent, 21.3% indicated

that hotels considered to some extent, 16.6% were neutral, and 5.3% indicated to no extent.

Table 4.24 also shows that 38.8% of the customers indicated that star-rated hotels involved customers in green practices decision-making to a great extent, 26.3% to some extent, 20.4% were neutral, 9.5% to a very great extent and 5.0% to no extent respectively. According to the findings, 39.9% of the customers believed that star-rated hotels allow customers to participate and have an influence on decision-making related to green practices to a great extent, 31.7% to some extent, 10.1% were neutral, 9.8% to no extent and 8.6% to a very great extent.

Lastly, 39.9% of the customers indicated that star-rated hotels along the Kenyan Coast seek advice on green practices from customers to a great extent, 17.8% were neutral, 17.2% to some extent, 16.9% to a very great extent and 8.3% to no extent respectively. "The hotel allows customers to participate and have an influence on decision making related to green practices" has p-value=0.367>0.05, despite having a mean of 3.06>3, the responses for this statement are not significant. Therefore, it was found that the star-rated hotels do not allow customers to participate and influence decision-making issues related to green practices. However, all the other Likert scale responses were significant, with all p-values less than .05, as shown in Table 4.25.

Table 4. 25: Moderating Effect of Environmental Leadership (One-Sample t-test) - Customers

The hotel…	Mean	*t*	*df*	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Is aware of key customers' demands related to green practices	3.66	9.956	337	.000	.66568	.5342	.7972
Considers the impact of green practices decisions on customers	3.61	8.567	337	.000	.60947	.4695	.7494
Involves customers in green practices decision making	3.21	3.592	337	.000	.21302	.0964	.3297
Allows customers to participate and have an influence on decision-making related to green practices	3.06	.903	337	.367	.05917	-.0697	.1880
Seeks advice on green practices from customers	3.40	6.159	337	.000	.39941	.2718	.5270

Note. df = degrees of freedom. *t* = t-Test. Likert-scale: 5 = very great extent, 4 = great extent, 3 = neutral, 2 = some extent, 1 = no extent. Scale mean = 3.00

This implies that star-rated hotels along the Kenyan Coast were aware of customers' demands related to green practices, considered the impact of green practices decisions on customers, involved customers in decision-making, and sought advice on green practices from customers. In addition, the research study noted that most of the star-rated hotels involved internal and external stakeholders in decision-making related to green practices planning and adoption. The stakeholders included staff, guests, the local community, learning institutions, hotel associations, green certification associations, county government, beach operators, environmental management agencies and suppliers.

The study further observed that managers with good environmental skills acted as role models to their followers. They were aware of key stakeholder demands, considered the impact of green practices decisions on key stakeholders, sought their opinions and invited them to participate in decisions related to green practices. The environmentally conscious managers had a good participatory framework and policies not only to involve both external and internal stakeholders but also to consider their opinions and

views when making decisions concerning green practices. Expert ‘E4’ had the following to say;

> *“[…] hospitality and tourism institutions should inculcate a green culture through exposing the learners (potential managers) to green learning resources and experiences that lead to the continuous development of green-oriented leadership values.”*

4.8.1 Moderated Multiple Regression (MMR) Analysis

A moderating variable explains when a dependent variable and an independent variable are related, strengthening or weakening the current relationship between these two variables. The moderating variable in this study was environmental leadership. In this study, the standard method of examining whether a moderating effect exists was employed, as explained in Aguinis (2004), that is, the moderated multiple regression (MMR). This method entails adding a linear interaction term in the multiple regression model. Aguinis (2004) and Edwards (2013) state that it is a stepwise method involving three stages.

In the first stage, the independent variable is entered into the first regression model to determine the main effect. In the second step, the moderating variable is introduced. The final stage introduces the interaction term of the independent and the moderating variables. Several results are obtained through this procedure. Thus, the Model Summary will be interpreted to understand whether environmental leadership has a moderating effect. In addition, it shows the change in R^2 used in determining the statistical significance of the interaction term and whether environmental leadership moderates the relationship between the independent and dependent variables.

Each relationship between the two independent variables, perceived benefits and stakeholders' engagement, is first tested for the moderation effect of environmental leadership. Lastly, the moderation effect of environmental leadership on the relationship between the independent and dependent variables was tested. The moderating effect of the hypotheses that were tested was as follows:

H_{03a}: Environmental leadership moderates the relationship between stakeholders' engagement and adoption of green practices among star-rated hotels along the Kenyan Coast.

H_{03b}: Environmental leadership moderates the relationship between perceived benefits and adoption of green practices among star-rated hotels along the Kenyan Coast.

H_{03c}: Environmental leadership moderates the relationship between stakeholders' engagement, perceived benefits and adoption of green practices among star-rated hotels along the Kenyan Coast.

4.8.1.1 Testing the Null Hypothesis One (H_{03a})

The findings were as reported in Table 4.26. The column highlighted R squared change shows that the change in R^2 is 0.034 (3.4%). This means an increase in variation is explained when an interaction term is added by 3.4%. Further notable is the fact that the change in R^2 is significant since the p-value<0.0001. Therefore, environmental leadership was found to have a moderating role in the relationship between stakeholder engagement and the adoption of green practices among star-rated hotels along the Kenyan Coast.

Table 4. 26: Testing the Moderating Effect of Environmental Leadership on the Relationship between Stakeholders' Engagement and Adoption of Green Practices

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Change	F Change	df1	df2	Sig. F Change
1	.854[a]	.729	.727	.53177	.729	280.174	1	104	.000
2	.873[b]	.763	.758	.50005	.034	14.615	1	103	.000

a. Predictors: (Constant), stakeholders
b. Predictors: (Constant), stakeholders' engagement, environmental leadership
c. Dependent Variable: green practices

4.8.1.2 Testing the Null Hypothesis Two (H_{03b})

Following the same procedure as the one used in testing the null hypothesis H_{03a}, the findings are shown in Table 4.27. From the findings, it can be seen that R Square Change=0.713 (that is 71.3%). This implies an increase in variation explained when an interaction term was added by 71.3%. Further notable was the fact that the change in R^2 is significant since the p-value<0.0001. Therefore, it was concluded that environmental leadership moderates the relationship between stakeholders' perceived benefits and the adoption of green practices among star-rated hotels along the Kenyan Coast.

Table 4. 27: Testing the Moderating Effect of Environmental Leadership on the Relationship between Stakeholder Perceived Benefits/Costs and Adoption of Green Practices

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Change	F Change	df1	df2	Sig. F Change
1	.070[a]	.005	-.005	1.01955	.005	.510	1	104	.477
2	.847[b]	.718	.712	.54584	.713	259.845	1	103	.000

a. Predictors: (Constant), perceived benefits
b. Predictors: (Constant), perceived benefits, environmental leadership
c. Dependent Variable: green practices

4.8.1.3 Testing the Null Hypothesis Three (H_{03c})

This hypothesis test deviated from the first two hypotheses by including two independent variables in the first step rather than one independent variable at a time. The findings are presented in Table 4.28. From the findings, it was evident that R Square Change=0.063 (6.3%). This implies that there was an increase in variation that is explained when an interaction term is added by 6.3%. Further notable was that the

change in R^2 is significant since the p-value<0.0001. Therefore, a conclusion was made that environmental leadership moderates the relationship between stakeholders' engagement, perceived benefits and adoption of green practices among star-rated hotels along the Kenyan Coast.

Table 4. 28: Moderating Effect of Environmental Leadership on the Relationship between Stakeholder Engagement, Perceived Benefits and Adoption of Green Practices

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Change	F Change	df1	df2	Sig. F Change
1	.864[a]	.747	.742	.51698	.747	151.736	2	103	.000
2	.900[b]	.809	.804	.45058	.063	33.594	1	102	.000

a. Predictors: (Constant), stakeholders, perceived benefits
b. Predictors: (Constant), stakeholders, perceived benefits, leadership
c. Dependent Variable: green practices

4.8.2 Hypothesis Test

The study further sought to test the moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices among star-rated hotels along the Kenyan Coast using research hypotheses. The third null hypotheses [H_{03}] and alternative hypothesis [H_{a3}] were stated as follows: -

H_{03}: - $\beta_3 = 0$ (There is no significant moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices in star-rated hotels along the Kenyan Coast).

H_{a2}: - $\beta_2 \neq 0$ (There is a significant moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices among star-rated hotels along the Kenyan Coast).

The regression model without the moderator (environmental leadership) explained 74.7% of the variation in the adoption of green practices by the hotels in this study (R=.864. R^2=.747). On the other hand, the regression model with the moderator

(environmental leadership) explained 80.9% of the variation in the adoption of green practices by the hotels in this study (R=.900, R^2=.809).

R^2 Change=0.063 (6.3%) indicated an increase in variation explained when an interaction term is added. Further notable was the fact that the change in R^2 is significant since the p-value<0.0001. This demonstrated that the moderator explained an additional 6.3% variation, which was statistically significant (p<.001). The study, therefore, rejected the null hypothesis and accepted the alternative hypothesis. The results indicated that "environmental leadership has a significant positive moderating effect on the relationship between stakeholder commitment and adoption of green practices among star-rated hotels along the Kenyan Coast."

Concerning the moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices, the theory of corporate sustainability (Epstein & Buhovac, 2014) assumes that environmental leadership is a pivot to green strategies formulation, advocacy and adoption. Green transformational leadership theory further complements the corporate sustainability theory. It postulates that this kind of leadership greatly contributes to formulating green human resource management policies and subsequent green strategies that support adopting the practices.

The results agree with Kearins and Collins (2012), who indicated that adopting diverse green practices and hotel managers' responsibilities in promoting a green culture have been attributed to the role of environmental leadership. These findings ascertain that embracing and adopting green practices in hotel organizations cannot be achieved without environmental leadership support and commitment. The findings were also consistent with those of (Case et al., 2015).

Their study on rethinking environmental leadership noted that invoking changes concerning greening aspects and system operation perceptions through leadership is necessary to continuously support green initiatives and biodiversity. Further, the findings concur with those of Kura (2016), who found that leadership style can initiate relationships that culminate in transmitting green values to employees and other key stakeholders.

4.9 Summary

This chapter focused on the discussion and hypothesis tests of current and potential green practices adopted by star-rated hotels, the role of stakeholder engagement in adoption of green practices among star-rated hotels, effect of perceived benefits on adoption of green practices by star-rated hotels and the moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices among star-rated hotels along the Kenyan Coast. All the alternate hypotheses were accepted leading to the development of a statistical model with tested predictor variables for use by star rated hotels in the adoption of green practices.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of the Study Findings

The summary was derived from data obtained and analysed in tandem with the objectives and hypotheses of the research study. The study's general objective was to establish the effect of environmental commitment on the adoption of green practices among star-rated hotels along the Kenyan Coast. The specific objectives were: To establish current and potential green practices adopted by star-rated hotels along the Kenyan Coast; To determine the role of stakeholder engagement in the adoption of green practices among star-rated hotels along the Kenyan Coast; To establish the effect of perceived current and potential benefits/costs on the adoption of green practices by star-rated hotels along Kenyan Coast; To determine the moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices among star-rated hotels along Kenyan Coast.

5.1.1 Current and Potential Green Practices Adopted in Star-Rated Hotels

This objective sought to establish current and potential green practices adopted by star-rated hotels along the Kenyan Coast. The t-test results from line managers and customers revealed that green practices were significant and had been adopted by star-rated hotels along the Kenyan Coast ($p \geq 0.05$). They include renewable energy, energy-efficient equipment, linen and towel reuse program, use of water-efficient devices, use of environmentally friendly cleaners or detergents, key stakeholders' involvement in green practices decision making, recycling programs, refillable devices, serving proper food portions and purchasing of recyclable products.

On the other hand, the t-test results also indicated that the green practice “composts organic kitchen waste” was not significant (p-value>0.05). Therefore, star-rated hotels

along the Kenyan Coast have not adopted composting of organic kitchen waste and have no potential to adopt it. Furthermore, the p-value for "…installs occupancy sensors or key card control system in guest rooms to reduce in-room energy consumption" is less than 0.05 (therefore significant). However, the mean is below 3, implying that this green practice is negatively adopted in star-rated hotels along the Kenyan coast. Finally, renewable energy options had a p-value=0.086>0.05, implying star-rated hotels along the Kenyan Coast have not implemented renewable energy programs significantly.

Indeed, hotel managers, especially in four and five-star rated hotels, reported they were in the process of installing a key card control system; however, this required more serious financial consideration since the initial cost is higher. Additionally, installing solar panels for use in the guest rooms was part of the solar project they have already started. Therefore, they intended to implement the project in phases, where the installation would be done in some rooms and then extended to others due to the high cost.

5.1.2 The Role of Stakeholder Engagement in Green Practices Adoption

The second objective was stakeholder engagement's role in adopting green practices among star-rated hotels along the Kenyan Coast. The t-test analysis noted that all stakeholder engagement practices were statistically significant with p-values of more than 0.05 and had a mean of 3.0 and above. The practices involved stakeholders conveying their perspectives about how to solve the green practices problems and providing new ideas for improving green practices. Additional alternatives included participating in defining green practices performance indicators and participating in

identifying green policies and programs. This implies that stakeholder participation in green practices among star-rated hotels along the Kenyan Coast is significant.

Hotel organizations engaged in continuous learning and improvement of meaningful stakeholder relations through different stakeholder forums organized by green initiatives committees. Various green capacity-building seminars, workshops, beach clean-ups, and tree-planting activities were organized. Additional green capacity collaborations included giving suppliers guidelines to improve product quality and minimize waste by avoiding excessive packaging. Turtle conservation, a biodiversity program aimed at improving life under the water and reducing pollution, was also enhanced through conservation talks with house guests, beach operators, boat owners and fishermen.

The results from multiple linear regression indicated a significant positive relationship between stakeholder engagement and the adoption of green practices. Therefore, the null hypothesis (H_{01}) that there is no significant relationship between stakeholder engagement and adoption of green practices in star-rated hotels along the Kenyan Coast was rejected ($t=17.363$, p-value$=0.000\leq0.05$). This implies that stakeholder engagement significantly influences the adoption of sustainable practices among star-rated hotels in Coastal Kenya.

5.1.3 Perceived Current and Potential Benefits/Costs and Green Practices Adoption

The objective sought to establish the effect of perceived current and potential benefits/costs of adopting green practices. The items that were highly rated overall included the following;

The first one was that adopting green practices contributed to reducing operational costs (69.8%). Hotel managers indicated that the linen reuse program in rooms reduces water consumption, wastewater generation and energy used in the laundry.

Secondly, 68.9% of the line managers noted that green practices improve the relationship with local communities. Concerning the benefits of green practices to the community, one hotel manager reported that the hotel not only purifies water internally but also has a supply point where the local community refills their water dispensers at a cheaper price.

The third item is that adopting green practices contributes to sustaining the environment (69.8%). Concerning the environmental protection function of green practices, a hotel manager indicated that green practices are important in protecting the beach and entire marine life. Moreover, these benefits trickle down to stakeholders along the beach regarding increased patronage and subsequent economic returns.

Some of the major perceived costs/challenges of green practices included the following as noted by hotel managers; the study noted that more than 50% (n =17) of the hotels had not installed occupancy sensors or key card control systems. Regarding energy management, hotel managers reported that they were in the process of installing a key card control system; however, the initial cost was higher. At the same time, installing solar panels for use in the guest rooms was part of the future projects; however, the

The qualitative results also indicated high maintenance implementation was planned in phases due to the high installation costs associated with solar water heating systems, which many hotels were not ready to offset. Indeed, one major challenge, according

to maintenance managers, was the high cost of servicing the solar water heating systems due to the clogging of inlet and outlet by salt deposits resulting from high water salinity. This necessitated using a standby boiler as an alternative in solar system failure.

Noteworthy also was a major challenge for hotel managers to monitor, audit and report green performance to internal and external stakeholders. The hospitality and tourism experts noted that there is an urgent need to develop comprehensive guidelines to help star-rated hotels monitor, audit and report green practices.

This gives rise to the need to develop an institution to build capacity for the adoption of green practices through training, auditing and funding of these practices in star-rated hotels. Hotel managers and related associations should, therefore, develop standards to provide guidelines on monitoring, recording and reporting green practices performance in financial and non-financial terms to internal and external stakeholders.

Hypothesis results from multiple linear regression revealed that stakeholder perceived benefits/costs significantly influence the adoption of sustainable practices among star-rated hotels in Coastal Kenya. The results of hypothesis; H_{02}: There is no statistically significant relationship between current and potential perceived benefits/costs, and the adoption of green practices by star-rated hotels along the Kenyan Coast was rejected (t= (2.653) p-value=0.000≤0.05). This implies that a unit change in perceived benefits/costs will increase green practices if all other predictors remain constant.

5.1.4 Moderating Effect of Environmental Leadership

The fourth and last objective sought to determine the moderating effect of environmental leadership on the relationship between environmental commitment and

adoption of green practices among star-rated hotels along the Kenyan Coast. From the t-test analysis, it was observed that four Likert scale responses were significant, with all p-values being less than 0.05. This implies that star-rated hotels along the Kenyan coast were aware of customers' demands related to green practices, considered the impact of green practices decisions on customers, involved customers in decision-making, and sought advice on green practices from customers.

A key observation made by the study is that most hotel managers had a good ability to engage and develop relatively more collaborative relationships with external stakeholders and experts. For example, the hotels' environmental committees and subcommittees partner with the wildlife association, tourist association, green certification association, beach operators, and forestry association in looking at the best practices to conserve the neighbouring forests. This was an indicator of good environmental values and leadership. The managers further noted that luxurious hotels not only collaborate with internal and external stakeholders in greening hotel operations but also engage experts to advice on turtle and butterfly conservation projects.

The study further observed that managers with good environmental skills acted as role models to their followers. They were aware of key stakeholder demands, considered the impact of green practices decisions on key stakeholders, sought their opinions, and invited them to participate in decisions related to green practices. Concerning the continuous development of green-oriented leadership values, hospitality and tourism experts noted that hospitality and tourism institutions should inculcate a green culture by exposing the learners (potential managers) to learning resources and experiences that lead to the continuous development of green-oriented leadership values.

The moderated multiple regression analysis inferred that environmental leadership moderates the relationship between stakeholders' engagement, perceived benefits and adoption of green practices among star-rated hotels along the Kenyan Coast. The results of hypothesis; H_{02}: No significant moderating effect of environmental leadership on the relationship between environmental commitment and adoption of green practices among star-rated hotels along the Kenyan Coast was rejected (p-value<0.0001). This implies that environmental leadership is a pivot to green strategy formulation, advocacy and adoption.

5.1.5 Predictor Variables for Green Practices Adoption

The multiple linear regression sought to determine the best predictor model for the adoption of green practices. The model outcome was as follows;

Green practices = $\beta_0 + \beta_1$ Stakeholder engagement + β_2 Stakeholder perceived benefits + β_3 Environmental leadership + ε.

Therefore: -

Green practices = 1.890 + 0.760 stakeholder engagement + 0.242 perceived benefits

The β-value shows that a standard deviation increase in stakeholder engagement will result in a .760 standard deviation increase in the adoption of green practices, with all other factors held constant. Similarly, a standard deviation increase in perceived benefits will lead to a .242 standard deviation increase in the adoption of green practices if all other predictors remain constant. If stakeholder engagement and perceived benefits were rated at the mean, green practices would be constant (β_0 = 1.890).

While stakeholder engagement was the best predictor variable for adopting green practices, environmental leadership moderates the relationship between stakeholder engagement, perceived benefits and adoption of green practices, environmental leadership acts as a pivot and filter in sifting stakeholder perceptions, participatory green strategies formulation and adoption of green practices as shown in Figure 5.1.

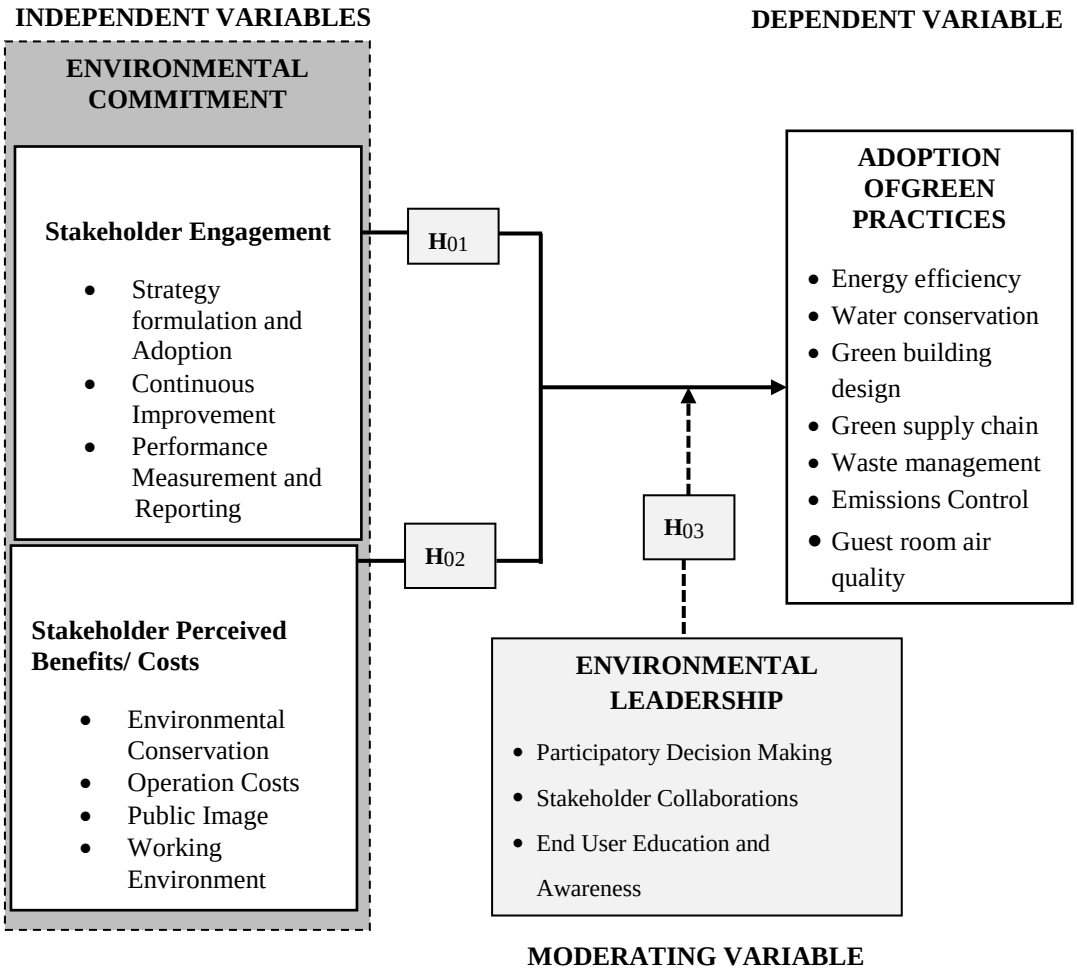

Figure 5. 1. Statistical Outcome Model for Adoption of Green Practices along Coastal Kenya based on study findings.

5.2 Conclusion

Based on the study findings, the following conclusions were made:

Star-rated hotels along the Kenyan Coast are growing recognition and adoption of green practices. The significantly adopted and recognized practices include using energy-efficient equipment, linen and towel reuse programs, use of water-efficient devices, use of environmentally friendly cleaners or detergents, key stakeholders' involvement in green practices decision-making, and recycling programs. Some potential green practices include installing key card control systems and solar power in guest rooms. These were among the capital-intensive potential green practices commonly found in four and five-star rated (luxurious) hotels. It was evident that such capital-intensive green practices were not common in lower star ratings. There was no standard framework for harmonious adoption and comparison of the green practices and their impacts on emissions control across the star ratings

Stakeholder engagement significantly influenced the adoption of green practices in star-rated hotels along the Kenyan Coast. This implies that star-rated hotels along the Kenyan Coast have continued to promote collaborative relationships with key stakeholders regarding capacity building, performance monitoring and reporting back to stakeholders. This helps achieve long-term success and continued recognition in environmental awareness and adopting green practices.

Stakeholder-perceived benefits have a significant positive influence on green practices adoption. This implies that star-rated hotels along the Kenyan Coast can leverage finances to acquire modern green technology, such as installing key card control systems and solar power in guest rooms. Further, key considerations can be made to

demystify the perceived interference of the green programs with the operational and financial performance of the hotels.

Environmental leadership was found to have a remarkable moderation effect on the relationship between environmental commitment and adoption of green practices. This implies that environmental leadership support is crucial in promoting collaborative relationships with key stakeholders. Green transformative leadership needs to be embraced to promote sustainable green culture in star-rated hotels along the Kenyan Coast.

The combination of environmental leadership and stakeholders' engagement in this study are key areas for further research development.

5.3 Recommendations

The research study has crucial implications for key stakeholders in the hospitality and tourism industry, such as hotel associations, green certification associations, hospitality training institutions (academia), government agencies, local community, guests, staff, beach operators and suppliers. This is attributed to the fact that green practices affect hotel operations and subsequent delivery of services to the guests as part of key stakeholders. In tandem with the highlighted inferences, the following recommendations were made by the research study:

5.3.1 Recommendations for Policy and Practice

According to the study findings, the following proposals were made concerning policy and practice:

In partnership with the Tourism Ministry and hotel associations, there is a need for the star-rated hotels to develop a standard framework for monitoring and evaluating

stakeholders' environmental expectations in adopting green practices by providing minimum performance indicators.

Tourism Regulatory Authority can develop and provide mechanisms to motivate star-rated hotels to adopt green practices through special awards. In addition, special recognition such as green certification awards, green investment tax allowance and incentives may also be extended to star-rated hotels to further motivate green innovations and leverage the adoption cost of capital-intensive green practices such as solar power installation.

Government agencies and hotel/tourist associations need to enhance green practices by strengthening the existing capacity-building institutions to partner with key stakeholders, mobilize green climate funds for star-rated hotels, and develop and review curricula, training resources and short courses in hospitality, tourism and environmental studies. This will enhance environmental knowledge, awareness and commitment.

Government agencies and hotel associations can provide environmental leadership support for green practices through environmental education, national policy formulation and enforcement of climate change regulations to support green growth.

5.3.2 Recommendations for Further Research

1. The data for this research study was obtained from star-rated hotels along the Kenyan Coast. Similar research studies can be conducted in other tourist circuits with different geographic features and tourist facilities.
2. A comparative study of green practices adoption can be conducted in star-rated lodges or other different categories of hospitality facilities.

3. The research study applied a cross-sectional survey method. Longitudinal alternative research design can be used in similar studies.
4. Similar studies can be conducted using different or more attributes than the ones applied in this research study.
5. Research studies on the role of green practices in developing competitive advantage for star-rated hotels can be undertaken.

REFERENCES

Abdou, A. H., Hassan, T. H., & Dief, M. M. E. (2020). A Description of Green Hotel Practices and Their Role in Achieving Sustainable Development. *Sustainability*, *12*(22), 1–20.

Accenture Strategy. (2016). *The UN Global Compact-Accenture Strategy*. https://www.slideshare.net/accenture/the-un-global-compactaccenture-strategy-ceo-study-2016-agenda-2030-a-window-of-opportunity

Adebitan, E. O. (2019). *Sustainable Waste Management: Awareness and Practices among Classified Hotels in Bauchi State, Nigeria*.

Aguinis, H. (2004). *Regression analysis for categorical moderators*. Guilford press,.

AH&LA. (2013). *Green Hotels: Opportunities and Resources for Success*. https://docplayer.net/14204743-Green-hotels-opportunities-and-resources-for-success.html

Alexander, S. (2008). *Green Hotels: Opportunities and resources for success.* https://www.google.com/search?source=univ&tbm=isch&q=Alexander,+S.+(2008).+Green+Hotels:+Opportunities+and+resources+for+success.+Zero+Waste+Alliance,+2-9&client=firefox-b-d&fir=-

Alexander, S., & Kuehnel, J. (2011). *How to increase your bottom line by going green.* https://www.google.com/search?source=univ&tbm=isch&q=Graci,+S.+and+Kuehnel,+J.+(2011),+%E2%80%9CHow+to+increase+your+bottom+line+by+going+green.+Green+Hotels+and+Responsible+Tourism+Initiative%E2%80%9D.&client=firefox-b-

Alonso-Almeida, M.-M., Robin, C. F., Pedroche, M. S. C., & Astorga, P. S. (2017). Revisiting green practices in the hotel industry: A comparison between mature

and emerging destinations. *Journal of Cleaner Production*, *P3*(140), 1415–1428. https://doi.org/10.1016/j.jclepro.2016.10.010

Alushula, P. (2020). Kenya's tourism earnings grow to Sh164bn as 2019 arrivals stay above 2m. *Business Daily*. https://www.businessdailyafrica.com/bd/economy/kenya-s-tourism-earnings-grow-to-sh164bn-as-2019-arrivals-stay-above-2m-2275946

Ayuso, S. (2006). Adoption of Voluntary Environmental Tools for Sustainable Tourism: Analysing the Experience of Spanish Hotels. *Corporate Social Responsibility and Environmental Management*, *13*, 207–220. https://doi.org/10.1002/csr.103

Babiak, K. A., & Trendafilova, S. (2011). CSR and Environmental responsibility Motives and Pressures to Adopt Green Management Practices. *Scientific Research Publishing*, *18*, 11–24.

Baker, M. (2015). *Case*. Cambridge University Press.

Baker, M. A., Davis, E. A., & Weaver, P. A. (2014). Eco-friendly attitudes, barriers to participation, and differences in behavior at green hotels. *Cornell Hospitality Quarterly*, *55*(1), 89–99.

Banerjee, S. B., Iyer, E. S., & Kashyap, R. K. (2003). Corporate environmentalism: Antecedents and influence of industry type. *Journal of Marketing*. https://researchdirect.westernsydney.edu.au/islandora/object/uws%3A887/

Baum, F., Jolley, G., Hicks, R., Saint, K., & Parker, S. (2007). What makes for sustainable Healthy Cities initiatives?—A review of the evidence from Noarlunga, Australia after 18 years. *Health Promotion International*, *21*, 259–265. https://doi.org/10.1093/heapro/dal023

Beaudoin, M., & Gosselin, P. (2016). An effective public health program to reduce urban heat islands in Québec, Canada. *Revista Panamericana de Salud Pública*, *40*, 160–166.

Berman, S. L., Wicks, A. C., Kotha, S., & Jones, T. M. (1999). Does Stakeholder Orientation Matter? The Relationship Between Stakeholder Management Models and Firm Financial Performance. *Academy of Management Journal*, *42*(5), 488–506. https://doi.org/10.5465/256972

Black, L. D., & Härtel, C. E. J. (2004). The five capabilities of socially responsible companies. *Journal of Public Affairs*, *4*(2), 125–144. https://doi.org/10.1002/pa.176

Bohdanowicz, P. (2006). Environmental awareness and initiatives in the Swedish and Polish hotel industries—Survey results. *International Journal of Hospitality Management*, *25*(4), 662.

Bohdanowicz, P. (2008). Theory and Practice of Environmental Management and Monitoring in Hotel Chains. *Sustainable Tourism Futures: Perspectives on Systems, Restructuring and Innovations*, 102–130. https://doi.org/10.4324/9780203884256.ch7

Bohdanowicz, P., & Martinac, I. (2003). *Attitudes towards sustainability in chain hotels – Results of a European survey*. CIB International Conference on Smart and Sustainable Built Environment. http://urn.kb.se/resolve?urn=urn:nbn:se:kth:diva-6216

Boissonneault, B. (2014). *Waste Minimization: 5 Source Reduction Tactics*. https://www.triumvirate.com/blog/waste-minimization-5-source-reduction-tactics

Brown, B. C. (2011). Conscious leadership for sustainability: How leaders with a late-stage action logic design and engage in sustainability. *Integralthinkers.Com*. https://www.academia.edu/760595/

Butler, J. (2008). The Compelling "Hard Case" for "Green" Hotel Development. *Cornell Hospitality Quarterly - CORNELL HOSP Q*, *49*, 234–244. https://doi.org/10.1177/1938965508322174

Cantor, D. E., Morrow, P. C., & Montabon, F. (2012). Engagement in Environmental Behaviors Among Supply Chain Management Employees: An Organizational Support Theoretical Perspective. *Journal of Supply Chain Management*, *48*(3), 33–51. https://doi.org/10.1111/j.1745-493X.2011.03257.x

Case, P., Evans, L. S., Fabinyi, M., Cohen, P. J., Hicks, C. C., Prideaux, M., & Mills, D. J. (2015). Rethinking environmental leadership: The social construction of leaders and leadership in discourses of ecological crisis, development, and conservation. *Leadership*, *11*(4), 396–423. https://doi.org/10.1177/1742715015577887

CC. (2018). *Water Saving Tips*. Consumer Council. https://www.consumercouncil.org.uk/consumers/rights-and-advice/water-saving-tips

Chan, E. S. W., Okumus, F., & Chan, W. (2018). Barriers to Environmental Technology Adoption in Hotels. *Journal of Hospitality & Tourism Research*, *42*(5), 829–852. https://doi.org/10.1177/1096348015614959

Chandran, C., & Bhattacharya, P. (2019). Hotel's best practices as strategic drivers for environmental sustainability and green marketing. *Journal of Global Scholars of Marketing Science*, *29*(2), 218–233. https://doi.org/10.1080/21639159.2019.1577156

Chang, C.-H. (2011). The Influence of Corporate Environmental Ethics on Competitive Advantage: The Mediation Role of Green Innovation. *Journal of Business Ethics*, *104*(3), 361–370.

Chege, P. W., & Irungu, R. W. (2017). *Managers' Perception of Voluntary Approaches to Green Practices at Four and Five Star Hotels in the Kenyan Coast*. http://repository.dkut.ac.ke:8080/xmlui/handle/123456789/576

Chen, H., Bernard, S., & Rahman, I. (2019). Greenwashing in hotels: A structural model of trust and behavioral intentions. *Journal of Cleaner Production*, *206*, 326–335. https://doi.org/10.1016/j.jclepro.2018.09.168

Chen, L.-F. (2019). Hotel chain affiliation as an environmental performance strategy for luxury hotels. *International Journal of Hospitality Management*, *77*, 1–6. https://doi.org/10.1016/j.ijhm.2018.08.021

Chen, S., Chen, H. H., Zhang, K. Q., & Xu, X. (2018). Comprehensive theoretical framework for examining learning effects in green and conventionally managed hotels. *Journal of Cleaner Production*. https://doi.org/10.1016/j.jclepro.2017.10.321

Cheyne, J., & Barnett, S. (2001). The Greening of Accommodation: Stakeholder Perspectives of Environmental Programmes in New Zealand Hotels and Luxury Lodges. *The Journal of Corporate Citizenship*, *1*, 115–126.

Clark, S., Gioia, D., Ketchen, D., & Thomas, J. (2010). Transitional Identity as a Facilitator of Organizational Identity Change during a Merger. *Administrative Science Quarterly - ADMIN SCI QUART*, *55*, 397–438. https://doi.org/10.2189/asqu.2010.55.3.397

Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*. Routledge.

Collier, J., & Esteban, R. (2007). Corporate social responsibility and employee commitment. *Business Ethics: A European Review*, *16*(1), 19–33. https://doi.org/10.1111/j.1467-8608.2006.00466.x

Corporate Eco Forum [CEF]. (2018). *What is the Process of Minimizing Waste?* https://www.google.com/search?source=univ&tbm=isch&q=CEF.+(2018:5).+What+is+the+Process+of+Minimizing+Waste?+Retrieved+from+Conserve+Energy+Future

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed). SAGE Publications.

Crossman, J. (2011). Environmental and Spiritual Leadership: Tracing the Synergies from an Organizational Perspective. *Journal of Business Ethics*, *103*, 553–565. https://doi.org/10.1007/s10551-011-0880-3

DAERA. (2018). *Landfill*. DAERA. https://www.daera-ni.gov.uk/articles/landfill

Deloitte Consulting Firm. (2010). *Company Program*. https://www2.deloitte.com/global/en/services/consulting-deloitte.html

Dief, M. E., & Font, X. (2012). Determinants of Environmental Management in the Red Sea Hotels: Personal and Organizational Values and Contextual Variables. *Journal of Hospitality & Tourism Research*, *36*(1), 115–137. https://doi.org/10.1177/1096348010388657

Dodds, R., & Joppe, M. (2005). *CSR in the Tourism Industry? The Status of and Potential for Certification, Codes of Conduct and Guidelines*. 61.

Dolnicar, S., Knezevic Cvelbar, L., & Grün, B. (2019). A Sharing-Based Approach to Enticing Tourists to Behave More Environmentally Friendly. *Journal of Travel Research*, *58*(2), 241–252. https://doi.org/10.1177/0047287517746013

Dolores López-Gamero, M., Claver-Cortés, E., & Francisco Molina-Azorín, J. (2011). Environmental Perception, Management, and Competitive Opportunity in Spanish Hotels. *Cornell Hospitality Quarterly*, *52*(4), 480–500. https://doi.org/10.1177/1938965511420694

Dos Santos, R. A., Méxas, M. P., & Meiriño, M. J. (2017). Sustainability and hotel business: Criteria for holistic, integrated and participative development. *Journal of Cleaner Production*. https://doi.org/10.1016/j.jclepro.2016.04.098

Dumont, J., Shen, J., & Deng, X. (2017). Effects of Green HRM Practices on Employee Workplace Green Behavior: The Role of Psychological Green Climate and Employee Green Values. *Human Resource Management*, *56*(4), 613–627. https://doi.org/10.1002/hrm.21792

Edwards, J. (2013). Methodological Wishes for the Next Decade and How to Make Wishes Come True. *Journal of Management Studies*, *51*, 143–174. https://doi.org/10.1111/joms.12058

EPA. (2017). *Environment Protection Act*. https://www.legislation.vic.gov.au/in-force/acts/environment-protection-act-2017/004

Epstein, M. J., & Buhovac, A. R. (2014). *Making Sustainability Work: Best Practices in Managing and Measuring Corporate Social, Environmental, and Economic Impacts* (Second edition). Berrett-Koehler Publishers.

Ernst and Young. (2008). *Hotel Industry Embraces Green Revolution—Green Hotels*. https://www.entrepreneur.com/growing-a-business/hotel-industry-embraces-green-revolution-green-hotels/201838

Ethical Corporation. (2015). *State of Sustainability 2015' report*. Eco-Business. https://www.eco-business.com/press-releases/ethical-corporation-publish-state-of-sustainability-2015-report/

Fernandez-Feijoo, B., Romero, S., & Ruiz, S. (2014). Effect of Stakeholders' Pressure on Transparency of Sustainability Reports within the GRI Framework. *Journal of Business Ethics*, *122*(1), 53–63.

Fernando, S., & Lawrence, S. (2014). A theoretical framework for CSR practices: Integrating legitimacy theory, stakeholder theory and institutional theory. *Journal of Theoretical Accounting Research*, *10*, 149–178.

Fletcher, R. (2018). Ecotourism. In *Companion to Environmental Studies*. Routledge.

Freeman, R. E. (2010). *Strategic Management: A Stakeholder Approach*. Cambridge University Press.

Freeman, R. E., & Dmytriyev, S. (2017). Corporate Social Responsibility and Stakeholder Theory: Learning From Each Other. *Symphonya. Emerging Issues in Management*, *1*, Article 1. https://doi.org/10.4468/2017.1.02freeman.dmytriyev

Global Tourism Forum. (2020). Global Tourism Forum. *Global Tourism Forum*. https://www.globaltourismforum.org/

GoK. (2010). *Kenya Vision 2030 (Popular Version) | Kenya Vision 2030*. https://vision2030.go.ke/publication/kenya-vision-2030-popular-version/

GoK. (2015). *National Climate Change Response Strategy*. https://www.google.com/search?client=firefox-b-d&q=National+Climate+Change+Response+Strategy+%282010%29.+Response+to+Climate+Change+in+Kenya.+Government+Publication.

GoK. (2019). Economic Survey 2019. *Kenya National Bureau of Statistics*. https://www.knbs.or.ke/download/economic-survey-2019/

González-Rodríguez, M. R., Martín-Samper, R. C., Köseoglu, M. A., & Okumus, F. (2019). Hotels' corporate social responsibility practices, organizational

culture, firm reputation, and performance. *Journal of Sustainable Tourism*, *27*(3), 398–419. https://doi.org/10.1080/09669582.2019.1585441

Gössling, S. (2002). Global environmental consequences of tourism. *Global Environmental Change*, *12*, 283–302. https://doi.org/10.1016/S0959-3780(02)00044-4

Graci, S., & Dodds, R. (2008). Why Go Green? The Business Case for Environmental Commitment in the Canadian Hotel Industry. *Anatolia*, *19*, 251–270. https://doi.org/10.1080/13032917.2008.9687072

Graves, L. M., & Sarkis, J. (2018). The role of employees' leadership perceptions, values, and motivation in employees' provenvironmental behaviors. *Journal of Cleaner Production*, *196*, 576–587. https://doi.org/10.1016/j.jclepro.2018.06.013

Graves, L. M., Sarkis, J., & Zhu, Q. (2013). How transformational leadership and employee motivation combine to predict employee proenvironmental behaviors in China. *Journal of Environmental Psychology*, *35*, 81–91. https://doi.org/10.1016/j.jenvp.2013.05.002

Green Assessment Survey. (2008). *Green Assessment Survey*. https://www.google.com/search?source=univ&tbm=isch&q=Green+Assessment+Survey+(2008).&client=firefox-b-

Han, H. (Spring). (2012). The Relationship among Corporate Culture, Strategic Orientation, and Financial Performance. *Cornell Hospitality Quarterly*, *53*(3), 207–219. https://doi.org/10.1177/1938965512443505

Hansen, J. (2012). *Why I Must Speak Out About Climate Change*. https://countercurrents.org/hansen140312.htm

Henderson, R. M. (2015). Making the Business Case for Environmental Sustainability. *Harvard Business School Working Paper Series # 15-068*. https://dash.harvard.edu/handle/1/14369097

Henriques, I., & Sadorsky, P. (1999). The Relationship Between Environmental Commitment and Managerial Perceptions of Stakeholder Importance. *Academy of Management Journal*, *42*(1), 87–99. https://doi.org/10.5465/256876

Hsieh, Y. (Jerrie). (2012). Hotel companies' environmental policies and practices: A content analysis of their web pages. *International Journal of Contemporary Hospitality Management*, *24*(1), 97–121. https://doi.org/10.1108/095961112

Hu, M.-L., Horng, J.-S., Teng, C.-C., & Chou, S.-F. (2013). A criteria model of restaurant energy conservation and carbon reduction in Taiwan. *Journal of Sustainable Tourism*, *21*(5), 765–779. https://doi.org/10.1080/09669582.2012.721787

Huang, K.-T., Wang, J. C., & Wang, Y.-C. (2015). Analysis and benchmarking of greenhouse gas emissions of luxury hotels. *International Journal of Hospitality Management*, *51*, 56–66. https://doi.org/10.1016/j.ijhm.2015.08.014

Irungu. (2015). *Determinants of Management Commitment to Application of Green Practices in Four and Five Star Hotels along Kenyan Coast* [Thesis]. https://ir-library.ku.ac.ke/handle/123456789/13474

Irungu, R. W., Amwata, D. A., & Njoroge, J. M. (2022). *Stakeholders' role in the adoption of green practices among star-rated hotels along coastal Kenya: Partnerships and collaborations. 7*(4), 68-79.

Irungu, R. W., & Njoroge, J. M. (2022). Greening of Hospitality. In *Encyclopaedia of Tourism Marketing and Management* (Vol. 3). Edward Elgar Publishing. https://www.google.com/search?source=univ&tbm=isch&q=Irungu+R.+W.,+and+Njoroge+J.+M.+(2022),+%27+Greening+of+Hospitality+%27+in+D.+Buhalis+(ed.)

Jauhari, V. (Ed.). (2014). *Managing Sustainability in the Hospitality and Tourism Industry: Paradigms and Directions for the Future*. Apple Academic Press. https://doi.org/10.1201/b16789

Jia, J., Liu, H., Chin, T., & Hu, D. (2018). The Continuous Mediating Effects of GHRM on Employees' Green Passion via Transformational Leadership and Green Creativity. *Sustainability*, *10*(9), Article 9. https://doi.org/10.3390/su10093237

Kashmanian, R., Keenan, C., & Wells, R. (2010). Corporate environmental leadership: Drivers, characteristics, and examples. *Environmental Quality Management*, *19*(4), 1–20. https://doi.org/10.1002/tqem.20259

Kasim, A. (2007). Towards a Wider Adoption of Environmental Responsibility in the Hotel Sector. *International Journal of Hospitality & Tourism Administration*, *8*(2), 25–49. https://doi.org/10.1300/J149v08n02_02

Kearins, K., & Collins, E. (2012). Making Sense of Ecopreneurs' Decisions to Sell Up. *Business Strategy and the Environment*, *21*(2), 71–85. https://doi.org/10.1002/bse.710

Khatter, A., McGrath, M., Pyke, J., White, L., & Lockstone-Binney, L. (2019). Analysis of hotels' environmentally sustainable policies and practices: Sustainability and corporate social responsibility in hospitality and tourism.

International Journal of Contemporary Hospitality Management, *31*(6), 2394–2410. https://doi.org/10.1108/IJCHM-08-2018-0670

Khatter, A., White, L., Pyke, J., & McGrath, M. (2021). Stakeholders' Influence on Environmental Sustainability in the Australian Hotel Industry. *Sustainability*, *13*(3), 1–16.

Kirk, D. (1995). Environmental management in hotels. *International Journal of Contemporary Hospitality Management*, *7*(6), 3–8. https://doi.org/10.1108/09596119510095325

Kitsis, A. M., & Chen, I. J. (2021). Do stakeholder pressures influence green supply chain Practices?Exploring the mediating role of top management commitment. *Journal of Cleaner Production*, *316*, 128258. https://doi.org/10.1016/j.jclepro.2021.128258

KNBS. (2020, April 28). Economic Survey 2020. *Kenya National Bureau of Statistics*. https://www.knbs.or.ke/economic-survey-2020/

Koetke, C. (2014). *3 big reasons to practice sustainability.* National Restaurant Association. https://www.google.com/search?source=univ&tbm=isch&q=Koetke,+C.+(2014).+3+big+reasons+to+practice+sustainability.+Retrieved+from+National+Restaurant+Association:+https://conserve.restaurant.org&client=firefox-b-

Kothari, C. R. (2004). *Research Methodology: Methods and Techniques*. New Age International.

Kothari, C. R. (2012). *Research Methodology, Methods & Techniques.* (2nd. Revised Ed). https://www.biblio.com/book/research-methodology-methods-techniques-2nd-revised/d/490585937

Kuenkel, P. (2013, April 10). Stakeholder engagement: A practical guide. *The Guardian*. https://www.theguardian.com/sustainable-business/stakeholder-engagement-practical-guide

Kularatne, T., Wilson, C., Månsson, J., Hoang, V., & Lee, B. (2019a). Do environmentally sustainable practices make hotels more efficient? A study of major hotels in Sri Lanka. *Tourism Management*, *71*, 213–225. https://doi.org/10.1016/j.tourman.2018.09.009

Kularatne, T., Wilson, C., Månsson, J., Hoang, V., & Lee, B. (2019b). Do environmentally sustainable practices make hotels more efficient? A study of major hotels in Sri Lanka. *Tourism Management*, *71*, 213–225. https://doi.org/10.1016/j.tourman.2018.09.009

Kura, K. M. (2016). Linking Environmentally Specific Transformational Leadership and Environmental Concern to Green Behaviour at Work. *Global Business Review*, *17*(3_suppl), 1S-14S. https://doi.org/10.1177/0972150916631069

Leonidou, L., Katsikeas, C., Fotiadis, T., & Christodoulides, P. (2013). Antecedents and consequences of an eco-friendly export marketing strategy. *Journal of International Marketing*, *21*, 22. https://doi.org/10.2307/23488034

Liu, A., Ren, F., Lin, W. Y., & Wang, J.-Y. (2015). A review of municipal solid waste environmental standards with a focus on incinerator residues. *International Journal of Sustainable Built Environment*, *4*(2), 165–188. https://doi.org/10.1016/j.ijsbe.2015.11.002

Lo, Y. (2013). Stakeholder management in the Chinese hotel industry: The antecedents and impacts. *International Journal of Contemporary Hospitality Management*, *25*(4), 470–490. https://doi.org/10.1108/09596111311322880

Maak, T. (2007). Responsible Leadership, Stakeholder Engagement, and the Emergence of Social Capital. *Journal of Business Ethics*, *74*(4), 329–343. https://doi.org/10.1007/s10551-007-9510-5

Martinuzzi, A., & Montevecchi, F. (2014). Research on waste reduction technologies in Europe: An analysis of FP7-funded projects and networks. *Management of Environmental Quality: An International Journal*, *25*(2), 216–226. https://doi.org/10.1108/MEQ-06-2013-0070

Mckercher, B., & Prideaux, B. (2011). Are tourism impacts low on personal environmental agendas? *Journal of Sustainable Tourism - J SUSTAIN TOUR*, *19*, 325–345. https://doi.org/10.1080/09669582.2010.524702

Miller, G., & Twining-Ward, L. (2005). Monitoring as an Approach to Sustainable Tourism. In *Tourism Management Dynamics*. Routledge.

Mkansi, M., & Acheampong, E. A. (2012). Research philosophy debates and classifications: Students' dilemma. *Electronic Journal of Business Research Methods*, *10*, 132–140.

Mwangi, .W. (2018). *Hotel Study Makes Business Case for Achieving SDG 12.3.* https://www.google.com/search?source=univ&tbm=isch&q=Mwangi,+W.+(2018).+Hotel+Study+Makes+Business+Case+for+Achieving+SDG+12.3.

National Academies of Sciences, E., Division, H. and M., Board, F. and N., Potassium, C. to R. the D. R. I. for S. and, Oria, M., Harrison, M., & Stallings, V. A. (2019). Sodium: Dietary Reference Intakes Based on Chronic Disease. In *Dietary Reference Intakes for Sodium and Potassium*. National Academies Press (US). https://www.ncbi.nlm.nih.gov/books/NBK545453/

National Round Table on the Environment and the Economy. (2021). National Round Table on the Environment and the Economy. In *Wikipedia*.

https://en.wikipedia.org/w/index.php?title=National_Round_Table_on_the_Environment_and_the_Economy&oldid=1029342275

Ndurya, & Marete. (2010, April 21). Kenya: Hotels Set for Green Star Rating by Nema. *The Nation*. https://allafrica.com/stories/201004211052.html

Nelson, J. (2011). *What is corporate sustainability leadership?* [Text]. https://www.cisl.cam.ac.uk/resources/archive-publications/what-is-corporate-sustainability-leadership

Njoroge, J. M. (2014). An enhanced framework for regional tourism sustainable adaptation to climate change. *Tourism Management Perspectives*, *12*, 23–30. https://doi.org/10.1016/j.tmp.2014.06.002

Njoroge, J. M. (2016). From Davos, Switzerland to Mombasa, Kenya: A position paper on the adoption of the 'Davos declaration' by hotels. *Current Issues in Tourism*, *19*(14), 1487–1492. https://doi.org/10.1080/13683500.2015.1042360

Northern Ireland Environment Agency [NIEA]. (2018). *Ten top tips for resource efficiency in your hotel | nibusinessinfo.co.uk*. https://www.nibusinessinfo.co.uk/content/ten-top-tips-resource-efficiency-your-hotel

Ojo, A. O., & Fauzi, M. A. (2020). Environmental awareness and leadership commitment as determinants of IT professionals engagement in Green IT practices for environmental performance. *Sustainable Production and Consumption*, *24*, 298–307. https://doi.org/10.1016/j.spc.2020.07.017

Okazaki, W. K., Turn, S. Q., & Flachsbart, P. G. (2008). Characterization of food waste generators: A Hawaii case study. *Waste Management*, *28*(12), 2483–2494. https://doi.org/10.1016/j.wasman.2008.01.016

Ondiege, D., & Nzioka, B. (2011, June 10). Kenya: Raw Waste Ruins Beaches. *The Star*. https://allafrica.com/stories/201106101078.html

O'Riordan, L., & Fairbrass, J. (2014). Managing CSR Stakeholder Engagement: A New Conceptual Framework. *Journal of Business Ethics*, *125*(1), 121–145.

Pamfilie, R., Firoiu, D., Croitoru, A.-G., & Ionescu, G. H. I. (2018). Circular economy: A new direction for the sustainability of the hotel industry in Romania? *Amfiteatru Economic Journal*, *20*(48), 388–404. https://doi.org/10.24818/EA/2018/48/388

Park, J., Jeong Kim, H., & McCleary, K. W. (2014). The Impact of Top Management's Environmental Attitudes on Hotel Companies' Environmental Management. *Journal of Hospitality & Tourism Research*, *38*(1), 95–115. https://doi.org/10.1177/1096348012452666

Park, J., & Kim, H. J. (2014). Environmental proactivity of hotel operations: Antecedents and the moderating effect of ownership type. *International Journal of Hospitality Management*, *37*, 1–10. https://doi.org/10.1016/j.ijhm.2013.09.011

Peiró-Signes, A., Segarra-Oña, M., Verma, R., Mondéjar-Jiménez, J., & Vargas-Vargas, M. (2014). The Impact of Environmental Certification on Hotel Guest Ratings. *Cornell Hospitality Quarterly*, *55*, 40–51. https://doi.org/10.1177/1938965513503488

Poldrugovac, K., Tekavcic, M., & Jankovic, S. (2016). Efficiency in the hotel industry: An empirical examination of the most influential factors. *Economic Research-Ekonomska Istraživanja*, *29*(1), 583–597. https://doi.org/10.1080/1331677X.2016.1177464

Rahman, I., Park, J., & Chi, C. G. (2015). Consequences of "greenwashing": Consumers' reactions to hotels' green initiatives. *International Journal of Contemporary Hospitality Management*, *27*(6), 1054–1081. https://doi.org/10.1108/IJCHM-04-2014-0202

Rahman, I., & Reynolds, D. (2016). Predicting green hotel behavioral intentions using a theory of environmental commitment and sacrifice for the environment. *International Journal of Hospitality Management*, *52*, 107–116.

Rahman, I., Reynolds, D., & Svaren, S. (2012). How "green" are North American hotels? An exploration of low-cost adoption practices. *International Journal of Hospitality Management*, *31*(3), 720–727. https://doi.org/10.1016/j.ijhm.2011.09.008

Raineri, N., & Paillé, P. (2016). Linking Corporate Policy and Supervisory Support with Environmental Citizenship Behaviors: The Role of Employee Environmental Beliefs and Commitment. *Journal of Business Ethics*, *137*(1), 129–148. https://doi.org/10.1007/s10551-015-2548-x

Regents, U. C. (2018). *Waste Minimization.* https://www.google.com/search?source=univ&tbm=isch&q=Regents,+U.C.+(2018).+Waste+Minimization.+Retrieved+from+Regents+of+the+University+of+California:+https://ehs.ucsc.edu/programs/waste-management/waste-minimization.html&client=firefox-b-

Rhodes, J., Bergstrom, B., Lok, P., & Cheng, V. (2014). A framework for stakeholder engagement and sustainable development in MNCs. *Journal of Global Responsibility*, *5*(1), 82–103. https://doi.org/10.1108/JGR-02-2014-0004

Robertson, J. L. (2018). The Nature, Measurement and Nomological Network of Environmentally Specific Transformational Leadership. *Journal of Business Ethics*, *151*(4), 961–975.

Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders' influence on employees' pro-environmental behaviors. *Journal of Organizational Behavior*, *34*(2), 176–194. https://doi.org/10.1002/job.1820

Rodriguez-Melo, A., & Mansouri, S. A. (2011). Stakeholder Engagement: Defining Strategic Advantage for Sustainable Construction. *Business Strategy and the Environment*, *20*(8), 539–552.

Saleh, A., & Bista, K. (2017). Examining Factors Impacting Online Survey Response Rates in Educational Research: Perceptions of Graduate Students. *Journal of MultiDisciplinary Evaluation*, *13*(29), Article 29.

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2012). *Research methods for business students* (6th ed). Financial Times/Prentice Hall.

Schaltegger, S., Burritt, R., & Petersen, H. (2017). *An Introduction to Corporate Environmental Management: Striving for Sustainability*. Routledge. https://doi.org/10.4324/9781351281447

Schmitt, A., Den Hartog, D. N., & Belschak, F. D. (2016). Transformational leadership and proactive work behaviour: A moderated mediation model including work engagement and job strain. *Journal of Occupational and Organizational Psychology*, *89*(3), 588–610. https://doi.org/10.1111/joop.12143

Scholz, P. (2018). *Green Management in Accommodation Facilities*. http://mindsintomatters.eu/file/green_management_in_accommodation_facilities_vos.pdf (accessed 20 December 2018) - Google Search

Sequeira, D., & Warner, M. (2007). *Stakeholder engagement: A good practice handbook for companies doing business in emerging markets*. International Finance Corporation.

Shanti, J. (2016). A Study on Environmental Sustainability Practices of Star Hotels in Bangalore. *Asian Journal of Business Ethics*, *5*(1–2), 185–194. https://doi.org/10.1007/s13520-016-0063-5

Shriberg, M. (2012). Sustainability leadership as 21st century leadership. In *Environmental leadership: A reference handbook*, *Vol. 2*. (Vol. 1–2). https://doi.org/10.4135/9781452218601

Simpson, M. C., Gössling, S., Scott, D., Hall, C. M., & Gladin, E. (2008). Climate change adaptation and mitigation in the tourism sector: Frameworks, tools and practices. *Climate Change Adaptation and Mitigation in the Tourism Sector: Frameworks, Tools and Practices.* https://www.cabdirect.org/cabdirect/abstract/20083177476

Strachan, L., McMillan, J., D'Annunzio-Green, N., & McGuire, D. (2015). *Conceptualising sustainable leadership*. https://www.google.com/search?source=univ&tbm=isch&q=Strachan,+L.,+McMillan,+J.,+D%E2%80%99Annunzio-

Styles, D., Schoenberger, H., & Galvez-Martos, J. L. (2015). Water management in the European hospitality sector: Best practice, performance benchmarks and improvement potential. *Tourism Management*, *46*, 187–202. https://doi.org/10.1016/j.tourman.2014.07.005

Sullivan. (2008). *Environmental Voluntary Approaches: Research Insights for Policy-Makers*. https://www.feem.it/en/publications/environmental-voluntary-approaches-research-insights-for-policy-makers/

Sustainable Travel Report. (2018). *Where Sustainable Travel is Headed*. Where Sustainable Travel Is Headed in 2018. https://news.booking.com/en-ca/where-sustainable-travel-is-headed-in-2018-ca/

Tariq, M., Yasir, M., & Majid, A. (2020). Promoting employees' environmental performance in hospitality industry through environmental attitude and ecological behavior: Moderating role of managers' environmental commitment. *Corporate Social Responsibility and Environmental Management, 27*(6), 3006–3017. https://doi.org/10.1002/csr.2019

Theuri, A. (2010). Reasons for going green in serviced accommodation establishments. *International Journal of Contemporary Hospitality Management, 16*(2), 116–124.

Thomsen, C. (2013). Sustainability (World Commission on Environment and Development Definition). In S. O. Idowu, N. Capaldi, L. Zu, & A. D. Gupta (Eds.), *Encyclopedia of Corporate Social Responsibility* (pp. 2358–2363). Springer. https://doi.org/10.1007/978-3-642-28036-8_531

Thorndike, R. M. (1995). Book Review: Psychometric Theory (3rd ed.) by Jum Nunnally and Ira Bernstein New York: McGraw-Hill, 1994, xxiv + 752 pp. *Applied Psychological Measurement*, *19*(3), 303–305. https://doi.org/10.1177/014662169501900308

TRA. (2015). *Tourism Regulatory Authority Archives*. Tenders Kenya. https://www.tenderskenya.co.ke/company/tourism-regulatory-authority/

Tumpa, T. J., Ali, S. M., Rahman, M. H., Paul, S. K., Chowdhury, P., & Khan, S. A. R. (2019). Barriers to green supply chain management: An emerging economy context. *Journal of Cleaner Production, 236*, 117617.

Tzschentke, N., Kirk, D., & Lynch, P. A. (2008). Going green: Decisional factors in small hospitality operations. *International Journal of Hospitality Management*, *27*(1), Article 1. https://doi.org/10.1016/j.ijhm.2007.07.010

UNEP. (2016). *Climate Change and Tourism: Responding to Global Challenges*. https://wedocs.unep.org/xmlui/handle/20.500.11822/25945

UNEP. (2021). *Emissions Gap Report 2021*. UNEP - UN Environment Programme. http://www.unep.org/resources/emissions-gap-report-2021

UNFCCC. (2015). *The Paris Agreement*. https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

UNWTO. (2018). *Tourism's three main impact areas*. https://www.google.com/search?source=univ&tbm=52Cck4-VOeXITyLsM%252C_%253BUylkX4p2S2v3aM%252Cck4-

UNWTO. (2020). *Exports from international tourism rise to US$ 1.8 trillion in 2018*. https://www.google.com/search?client=firefox-b-d&q=UNWTO+%282018%29%2C+%E2%80%9CExports+from+international+tourism+rise+to+US%24+1.8+trillion+in+2018%E2%80%9D%3A+http%3A%2F%2Fmedia.unwto.org.

UNWTO. (2022). *Conferences | Environment and sustainable development*. United Nations; United Nations. https://www.un.org/en/conferences/environment

Upadhyay, A., Pomponi, F., Vadam, C., & Mohan, S. (2016). Sustainability in the Hotel Industry: The Role of Operating Agreements in the Hotel Industry. In *Logistics, Supply Chain and Operations Management Case Study Collection*. Kogan Page Publisher.

Vagle, M. D. (2018). *Crafting Phenomenological Research* (2nd ed.). Routledge. https://doi.org/10.4324/9781315173474

Venkatesh, V., Brown, S. A., & Sullivan, Y. (2016). *Guidelines for Conducting Mixed-methods Research: An Extension and Illustration* (SSRN Scholarly Paper No. 3958485). https://papers.ssrn.com/abstract=3958485

Visser, W., & Courtice, P. (2011). Sustainability Leadership: Linking Theory and Practice. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1947221

Voegtlin, C., Patzer, M., & Scherer, A. G. (2012). Responsible Leadership in Global Business: A New Approach to Leadership and Its Multi-Level Outcomes. *Journal of Business Ethics*, *105*(1), 1–16. https://doi.org/10.1007/s10551-011-0952-4

Willard, M., & Hitchcock, D. (2015). *The Business Guide to Sustainability: Practical Strategies and Tools for Organizations* (3rd ed.). Routledge. https://doi.org/10.4324/9781315767390

World Commission on Environment and Development. (1987). *Report of the World Commission on Environment and Development :* https://digitallibrary.un.org/record/139811

WRAP. (2018). *Food waste hierarchy*. ResearchGate. https://www.researchgate.net/figure/Food-waste-hierarchy-obtained-from-WRAP-2018_fig1_338430585

WTTC. (2020). *News Article | World Travel & Tourism Council*. https://wttc.org/news-article/travel-and-tourism-could-grow-to-8-point-6-trillion-usd-in-2022-say-wttc

Yamane, T. (1967). *Statistics An Introductory Analysis. 2nd Edition* (Second Edition). Harper & Row.

Yusof, Z. B., & Jamaludin, M. (2014). Barriers of Malaysian Green Hotels and Resorts. *Procedia - Social and Behavioral Sciences*, *153*, 501–509. https://doi.org/10.1016/j.sbspro.2014.10.083

APPENDICES

Appendix 1: Cover Letter

ROBERT W. IRUNGU
MURANG'A UNIVERSITY OF TECHNOLOGY
SCHOOL OF TOURISM AND HOSPITALITY MANAGEMENT
P.O BOX 47
MURANG'A

Dear Respondent,

RE: REQUEST FOR RESEARCH DATA

I am a student pursuing a Doctor of Philosophy degree in Hospitality and Tourism Management at Murang'a University. I am conducting a research study entitled "Environmental commitment and adoption of green practices among star-rated hotels along the Kenyan coast". The study will examine the role of stakeholder engagement in promoting the adoption of green practices in the hotel sector.

Greening in hospitality is a wide-scale trend hence the need to establish the extent to which star-rated hotels have adopted sustainable practices to reduce their adverse effect on the ecosystem and offer quality service for customers. The responses obtained will be reported as aggregate data and in no way may be linked to you or any individual property. Your participation and responses will only be known by the researchers and will be treated with the highest level of confidentiality.

Thank you for your participation in this study.

Yours Faithfully

Robert W. Irungu

Appendix 2: Survey Questionnaire for Line Managers

Dear respondent,

I am a PhD student pursuing post-graduate studies in Hospitality and Tourism Management at the Murang'a University of Technology. I am conducting a research study entitled "Environmental commitment to the adoption of green practices/environmental friendly practices in star-rated hotels along the Kenyan coast". The study will examine the role of stakeholder engagement in promoting the adoption of green practices/environmental friendly practices in the hotel sector. Your contribution to this study will be highly appreciated. However, the information provided will be treated with utmost confidence and used for research purposes only.

SECTION A: Demographic information

Below are questions to obtain some general background about you and your hotel.

Tick where appropriate.

1. Please indicate the category of your hotel

   Five star ☐

   Four-star ☐

   Three-star ☐

   Others (specify……

1. What is your gender?

   Male ☐

   Female ☐

2. What is your current position in the hotel?

   General Manager ☐

   Head of the department ☐

   Others (specify)…….

3. How many years have you worked in this hotel company?

   Less than one year ☐

   Between 1-4 ☐

   Between 5-8 ☐

   Between 9-12 ☐

   Others (specify) ……..

4. What is your age in years?

Between 18-25 ☐

Between 25- 32 ☐

Between 32 – 45 ☐

Between 45 – 55 ☐

Between 55 – 65 ☐

5. What is your educational level?

Certificate ☐

Diploma ☐

Higher National Diploma ☐

Degree ☐

Masters ☐

Others (specify) ……..

SECTION B

1. Listed below are statements about current and potential green practices. Kindly show the current extent of the hotel's involvement in each greening activity by ticking the appropriate boxes. The scale ratings will be as follows: (very great extent =5, great extent=4, Neutral=3, some extent=2, no extent =1).

As part of going green, our hotel……	Very great extent	Great extent	Neutral	Some extent	No Extent
...implements renewable energy programs e.g. use of Wind or solar power					
...uses energy-efficient equipment and lighting					
...composts organic kitchen waste					
...installs occupancy sensors or electronic key card control systems to reduce in-room energy consumption in guest rooms					
...implements a linen and towel reuse program					
...installs water efficient devices and equipment, e.g. low water volume toilets, shower heads, laundry equipment or dishwashers					
...uses eco-friendly cleaners or detergents					
... involves the key stakeholders in green practices decision making					
...implements recycling programs					

...uses refillable amenity dispensers					
... serves proper food portions to reduce food waste					
...purchases recyclable products					

13. If the hotel adopts other green practices than the ones listed above, please specify.

……

……

……

2. Stakeholder engagement

14. Please indicate any three primary stakeholders in your hotel

Hotel associations ☐

Local community ☐

Customers ☐

Government regulatory agencies ☐

Non-Governmental Organizations ☐

Employees ☐

Others (specify)…….

Listed below are statements about stakeholder engagement. Please indicate your opinion on each statement. The scale ratings will be as follows: (very great extent =5, great extent=4, Neutral=3, some extent=2, no extent =1).

Our key stakeholders……	Very great extent	Great extent	Neutral	Some extent	No Extent
….relay their views on successfully solving the hotels' green practices problems.					
….give new ideas for improving green practices					
….take part in defining green practices performance indicators a hotel should use and report on.					
….take part in identifying green policies, objectives and programs.					

In case of other stakeholder engagements other than the ones listed above, please specify

……

……

……

2. Environmental Leadership

Listed below are statements about environmental leadership. Please indicate your opinion on each statement. The scale ratings will be as follows: (very great extent =5, great extent=4, Neutral=3, some extent=2, no extent =1).

As a manager I ……	Very great extent	Great extent	Neutral	Some extent	No Extent
….am cognizant of key stakeholder demands related to green practices.					
….take into account the impact of green practices decisions on key stakeholders.					
….involve the key stakeholders in green practices decision-making.					
….allow employees to participate and influence decision-making related to green practices.					
…seek advice on green practices implementation from employees.					

Please specify if the hotel uses approaches other than those listed above.

……

……

……....

3. Stakeholder Perceived Benefits of Green Practices

Listed below are the perceived benefits of adopting green practices and policies. Please indicate the extent to which you agree or disagree with each statement by ticking the appropriate box. The scale ratings will be as follows: (strongly agree=5, agree=4, Neutral=3 disagree=2 and strongly disagree=1).

To our hotel, application of green practices……..	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
...contributes to reducing operational costs					
...contributes to influencing service quality					
...provides access to new markets					
...improves the relationship with local communities					
...contributes to reducing negative					

impacts on the environment					
...improves public relations					
...functions as a marketing asset					
...contributes to increasing market share					
...makes our hotel more profitable					
...contributes to sustaining the environment					
…enhances employee motivation and satisfaction					
...differentiates services and products					
...improves our hotel image					
...contributes to a safe and healthy work environment for employees					

In case of additional perceived benefits, please specify.

……

……

……

……

……

…….

Thank you for participating

Appendix 3: Interview Schedule for General Managers

Dear respondent,

I am a PhD student pursuing post-graduate studies in Hospitality and Tourism Management at the Murang'a University of Technology. I am conducting a research study entitled "Environmental commitment to the adoption of green practices/environmental friendly practices among star-rated hotels along the Kenyan coast". The study will examine the role of stakeholder engagement in promoting the adoption of green practices/environmental friendly practices in the hotel sector. Your contribution to this study will be highly appreciated. However, the information provided will be treated with utmost confidence and used for research purposes only.

1. a) Do you engage stakeholders in the planning and implementation of green practices?

   ☐ Yes ☐ No

   If Yes in (a) above, indicate the key stakeholders involved

   ……

   ……

   ……

2. Do you allocate resources for stakeholder engagement?

   ☐ Yes ☐ No

3. Explain your answer in (3) above

   ……

   ……

   ……

4. Which methods are applied in stakeholder engagement? (Tick appropriately)
   - Personal interviews
   - Workshops
   - Focus groups
   - Surveys
   - Participatory tools
   - Meetings

Any other (Indicate) ……

5. How does the organization learn and continuously improve meaningful stakeholder engagement?

   ……
   ……
   ……
   ……..

6. Does the organization have any experience engaging stakeholders in green practices, and what lessons were learnt?

   ……
   ……
   ……
   ……....

7. To what extent are green practices perceived as beneficial by the stakeholders?

   Very much lower ☐
   Lower ☐
   About the same ☐
   Higher ☐
   Very much higher ☐

   In your opinion, outline the benefits of green practices to the hotel and other stakeholders……
   ……

8. How do you rate environmental leadership concerning the adoption of green practices?

   Poor ☐
   Fair ☐
   Good ☐
   Very good ☐
   Excellent ☐

9. What are the potential benefits and challenges of stakeholder engagement?

   ……
   ……

Thank you for your participation

Appendix 4: Survey Questionnaire for Customers

Dear respondent,

I am a PhD student pursuing post-graduate studies in Hospitality and Tourism Management at the Murang'a University of Technology. I am conducting a research study entitled "Environmental commitment to the adoption of green practices/environmental friendly practices among star-rated hotels along the Kenyan coast". The study will examine the role of stakeholder engagement in promoting the adoption of green practices/environmental friendly practices in the hotel sector. Your contribution to this study will be highly appreciated.

SECTION A: Demographic information

Tick where appropriate.

1. Category hotel
   - Five star ☐
   - Four-star ☐
   - Three-star ☐
   - Others (specify) …….

1. Gender/sex
   - Male ☐
   - Female ☐

2. Nationality
   - Kenyan ☐
   - Non-Kenyan ☐
   - Specify (Non-Kenyan) ……

4. Age
   - Between 21-30 Years ☐
   - Between 31- 40 Years ☐
   - Between 41 – 50 Years ☐
   - Between 51 – 60 Years ☐
   - Above 61 Years ☐

5. Highest level of education
   - Certificate ☐
   - Diploma ☐

Higher National Diploma ☐

Degree ☐

Masters ☐

Others (specify) ……

SECTION B

1. Listed below are statements about current and potential green practices. Please indicate your hotel's current involvement in each greening activity by ticking the appropriate boxes. The scale ratings will be as follows: (very great extent =5, great extent=4, Neutral=3, some extent=2, no extent =1).

As part of going green, the hotel……	Very great extent	Great extent	Neutral	Some extent	No Extent
...implements renewable energy programs e.g. use of Wind or solar power					
...uses energy-efficient equipment and lighting					
...composts organic kitchen waste					
...installs occupancy sensors or electronic key card control systems to reduce in-room energy consumption in guest rooms					
...implements a linen and towel reuse program					
...installs water efficient devices and equipment, e.g. low water volume toilets, shower heads, laundry equipment or dishwashers					
...uses eco-friendly cleaners or detergents					
... involves the key stakeholders in green practices decision making					
...implements recycling programs					
...uses refillable amenity dispensers					
... serves proper food portions to reduce food waste					
...purchases recyclable products					

13. If the hotel adopts other green practices than the ones listed above, please specify.

……

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……

……

2. Stakeholder engagement

Listed below are statements about stakeholder engagement. Please indicate your opinion on each statement. The scale ratings will be as follows: (very great extent =5, great extent=4, Neutral=3, some extent=2, no extent =1).

As a key stakeholder I……..	Very great extent	Great extent	Neutral	Some extent	No Extent
….convey views on how to successfully solve the hotels' green practices problems.					
….give new ideas for improving green practices					
….take part in defining green practices performance indicators a hotel should use and report on.					
….take part in identifying green policies, objectives and programs.					

In case of other stakeholder engagements other than the ones listed above, please specify

……

……

…….

……

Environmental Leadership

Listed below are statements about environmental leadership. Please indicate your opinion on each statement. The scale ratings will be as follows: (very great extent =5, great extent=4, Neutral=3, some extent=2, no extent =1).

The hotel……	Very great extent	Great extent	Neutral	Some extent	No Extent
….is cognizant of key customers' demands related to green practices.					
….examine the impact of green practices decisions on customers.					
….involve customers in green practices decision making.					
….allow customers to participate and influence decision-making related to green practices.					
…seeks advice on green practices implementation from customers.					

Please specify if the hotel uses approaches other than those listed above.

.....

.....

.....

.....

Stakeholders' perceived benefits

In your opinion, outline the benefits of green practices to customers and the hotel.

……

……

……

……

……

……...

Thank you for participating

Appendix 5: Interview Schedule for Experts

Dear respondent,

I am a PhD student pursuing post-graduate studies in Hospitality and Tourism Management at the Murang'a University of Technology. I am conducting a research study entitled "Environmental commitment to the adoption of green practices/environmental friendly practices in star-rated hotels along the Kenyan coast". The study will examine the role of stakeholder engagement in promoting the adoption of green practices/environmental friendly practices in the hotel sector. Your contribution to this study will be highly appreciated. However, the information provided will be treated with utmost confidence and used for research purposes only.

Thematic Areas

- Rating the hotels' implementation of green practices
- Involvement of stakeholders in decision-making regarding green certification awards
- Engagement of professionals/experts by hotel managers
- Methods used in stakeholder engagement
- Impacts of stakeholder engagement
- Environmental leadership in hotels
- Defining green practices performance indicators
- Identifying green practices policies
- Auditing of green practices in hotels
- Benefits and challenges involved in stakeholder engagement and subsequent implementation of green practices.

Thank you for participating

Appendix 6: Observation Checklist for the Researcher

Listed below are observed green practices/other practices specified by participants.

Tick YES or NO where appropriate

GREEN PRACTICES			**REMARKS**
A. Energy conservation	**YES**	**NO**	
1. Use of energy-saving bulbs			
2. Solar panels			
3. Natural lighting			
B. Water conservation			
1. Presence of boreholes			
2. Rainwater harvesting			
3. Low water volume taps			
4. Linen re-use			
C. Waste reduction & recycling			
1. Use of recycling plants			
2. Xeric gardening			
D. Green purchasing and supply chain			
Use of environmentally friendly detergents, cleaners and food materials			
E. Control of carbon emissions Use of green energy Controlled traffic/ parking lots			
F. Green building design Materials used Size of exterior openings/Windows Exterior/ interior finishes			

Appendix 7: Register of Classified Establishments

COAST					
CAPACITY			RATING		
1.	PrideInn Paradise	Mombasa	240	480	*****
2.	Leopard Beach Resort and Spa	Kwale	198	396	*****
3.	Hemingways Watamu	Kwale	166	200	*****
4.	Diani Reef Beach Resort & Spa	Kwale	143	286	*****
5.	Swahili Beach Resort	Kwale	125	250	*****
6.	Medina Palms Suites and Villas	Kilifi	40	70	*****
7.	Baobab Beach Resort & Spa	Kwale	343	686	****
8.	Sarova White Sands Beach Resort and Spa	Mombasa	335	435	****
9.	Leisure Lodge Beach & Golf Resort	Kwale	253	506	****
10.	Voyager Beach Resort	Mombasa	236	472	****
11.	Severin Sea Lodge	Mombasa	188	376	****
12.	Diani sea resort	Kwale	170	340	****
13.	Serena Beach Resort and Spa	Mombasa	164	328	****
14.	Turtle Bay Beach Club	Kilifi	145	290	****
15.	Lantana Galu Beach	Kwale	47	240	****
16.	Silver Palm Spa & Resort	Kilifi	40	80	****
17.	Diamond Dream of Africa	Kilifi	35	70	****
18.	Marina English Point	Mombasa	26	28	****
19.	Msambweni Beach House and Private Villa	Kwale	5	24	****
20.	Leopard Point Luxury Beach Resort	Kilifi	15	30	****
21.	Sandies Tropical Village	Kilifi	109	218	***
22.	Bahari Beach Hotel	Mombasa	105	212	***
23.	Indian Ocean Beach Resort	Kwale	101	180	***
24.	Kenya Bay Beach Hotel	Mombasa	99	198	***
25.	Royal Court Hotel	Mombasa	89	188	***
26.	Mnarani Club	Kilifi	80	160	***
27.	Crystal Bay Beach Resort	Kilifi	76	176	***
28.	Ashnil Aruba Lodge	Taita	52	108	***
29.	Isinya Resorts Limited	Mombasa	43	86	***
30.	PrideInn Mombasa	Mombasa	40	96	***
31.	Azul Margarita Beach Resort	Mombasa	35	98	***
32.	Sentrim Tsavo East Camp	Taita	25	50	***
33.	JacyJoka Apartments	Mombasa	12	16	***
34.	Bollywood Bites	Mombasa	0	0	***
35.	North Coast Beach Hotel	Kilifi	124	199	***
36.	Papillon Lagoon Reef Hotel	Kwale	150	300	**
37.	Neptune Paradise	Kwale	92	184	**
38.	Plaza Beach Hotel	Mombasa	88	176	**
39.	Seven Islands Resort	Kilifi	84	226	**
40.	Jambo Travellers Hotel	Kilifi	75	99	**
41.	Castle Royal Hotel	Mombasa	68	99	**
42.	Midview Hotel	Mombasa	68	136	**
43.	Neptune Palm Beach Resort & Spa	Kwale	60	120	**
44.	Morning Star Apartments	Kwale	50	65	**
45.	Gasaro Hotel Limited	Mombasa	39	58	**
46.	Kilili Baharini	Kilifi	35	70	**
47.	Voyager Safari Camp	Taita	25	50	**
48.	Flamingo Villas	Kilifi	20	36	**

Appendix 8: A Map of Star-Rated Hotels along the Kenyan Coast

Source: Google Maps 2021

Appendix 9: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 336921

Date of Issue: 19/August/2019

RESEARCH LICENSE

This is to Certify that Mr.. ROBERT IRUNGU of Murang'a University of Technology, has been licensed to conduct research in Mombasa on the topic: STAKEHOLDERS' COMMITMENT TO APPLICATION OF GREEN PRACTICES IN STAR RATED HOTELS ALONG THE KENYAN COAST for the period ending : 19/August/2020.

License No: NACOSTI/P/19/500

336921

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

Appendix 10: Introductory Letter

MURANG'A UNIVERSITY OF TECHNOLOGY
SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT
P.O.BOX 75-10200, PHONE: 0771463515, 0771370824MURANG'A
Email: info@mut.ac.ke

24th May 2019

FROM: A.G DEAN SHTM

TO WHOM IT MAY CONCERN

SUBJECT: INTRODUCTORY LETTER FOR MR. ROBERT IRUNGU ADM HT500/5247/2017

The above named person is a bone fide PhD student at the School of Hospitality and Tourism Management, Murang'a University of Technology. The student has successfully completed his PhD course work and he is currently planning for a field study on a topic titled: ***'An assessment of stakeholders' commitment to green practices application along the Kenyan Coast'***. Kindly accord him with any assistance that he may need.

If further clarification is required do not hesitate to contact the school.

Thank you.

DR. JOSEPH M. NJOROGE
A.G DEAN SHTM

SCHOOL OF HOSPITALITY & TOURISM MANAGEMENT
MURANG'A UNIVERSITY OF TECHNOLOGY
24 MAY 2019
P. O. Box 75-10200, MURANG'A
TEL: 0771463515, Email: info@mut.ac.ke

Appendix 11: Approval of Research Proposal and Supervisors

MURANG'A UNIVERSITY OF TECHNOLOGY (MUT)

P.O.Box 75-10200
Murang'a

Tel: +254-771463515

Email: bps@mut.ac.ke

Website: www.mut.ac.ke

DIRECTORATE OF POSTGRADUATE STUDIES

Ref: MUT/RL/PGS/14/2020/VOL.I **Date:** 16th September 2020

Dear Robert Irungu (HT500/5247/2017)

RE: APPROVAL OF RESEARCH PROPOSAL AND SUPERVISORS

I am pleased to inform you that the directorate of Postgraduate Studies on 15th September 2020 considered and approved your PhD research proposal entitled **"Stakeholders' commitment to application of green practices in Star rated hotels along the Kenyan Coast"** and appointed the following as supervisors:

1. Dr. Joseph Njoroge - Murang'a University of Technology
2. Dr. Dorothy Amwata - Murang'a University of Technology

You may now proceed with your data collection subject to obtaining research permit from NACOSTI, if required. You should also begin consulting your supervisors and submit through them quarterly progress reports to the Director Postgraduate Studies through your COD and School Dean. Progress Reports can be accessed in the University Website.

It is the policy and regulations of the University that you observe deadlines. The Guidelines on Postgraduate supervision can be accessed in the post graduate Handbook.

Your responsibilities as a student will include, among others;

1. Maintain regular consultation with your supervisor(s), at least once a month

Appendix 12: Research Publications

The following book section and journal article have been published from this thesis.

Irungu, R. W., & Njoroge, J. M. (2022). Greening of Hospitality. In *Encyclopedia of Tourism Management and Marketing* (pp. 469–472). Edward Elgar Publishing. https://www.elgaronline.com/view/book/9781800377486/b-9781800377486.greening.of.hospitality.xml

Irungu, R. W., Amwata, D. A., & Njoroge, J. M. (2022). *Stakeholders' role in the adoption of green practices among star-rated hotels along coastal Kenya: Partnerships and collaborations. 7*(4), 68-79.